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ABSTRACT

This report consists of information gathered from in-person surveys concerning substance abuse with adult residents (n=1,665) living in the Texas-Mexico border cities of Brownsville, El Paso, Laredo, and McAllen and with residents (n=504) of 51 different colonias in Hidalgo and Cameron counties (colonias are rural, unincorporated neighborhoods characterized by substandard housing and utility services). Current treatment needs and the prevalence of substance abuse within the group is discussed. Participants are compared to other populations including adults in other parts of Texas, Hispanics nationwide, and citizens of Mexican border cities. Acculturation and its relation to substance abuse is examined. Discusses driving while intoxicated, mental health, drug trafficking, availability of drugs and alcohol, family dynamics and problem gambling. Looks specifically at substance use and misuse in the colonias. Provides 22 charts and 29 tables illustrating results of the surveys. (Contains 80 references.) (MKA)

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1996 Survey of Substance Use on the Texas-Mexico Border and in Colonias

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Texas Commission on
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1996 Survey of Substance Use on the Texas-Mexico Border and in Colonias

Full Report

Lynn S. Wallisch, Ph.D.

Texas Commission on
Alcohol and Drug Abuse

Note

A preliminary report on the border findings had been issued by TCADA before an improved, more stringent methodology became available for use in the data analysis. As a result, some of the findings presented in the preliminary report may have changed somewhat. The present report should therefore completely supersede the preliminary report.

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Last but not least, thanks are due to the 2,169 residents of border communities who generously provided their time and insights as respondents to this survey. We sincerely hope that the findings from this study will ultimately benefit the *fronterizos* on both sides of the border.

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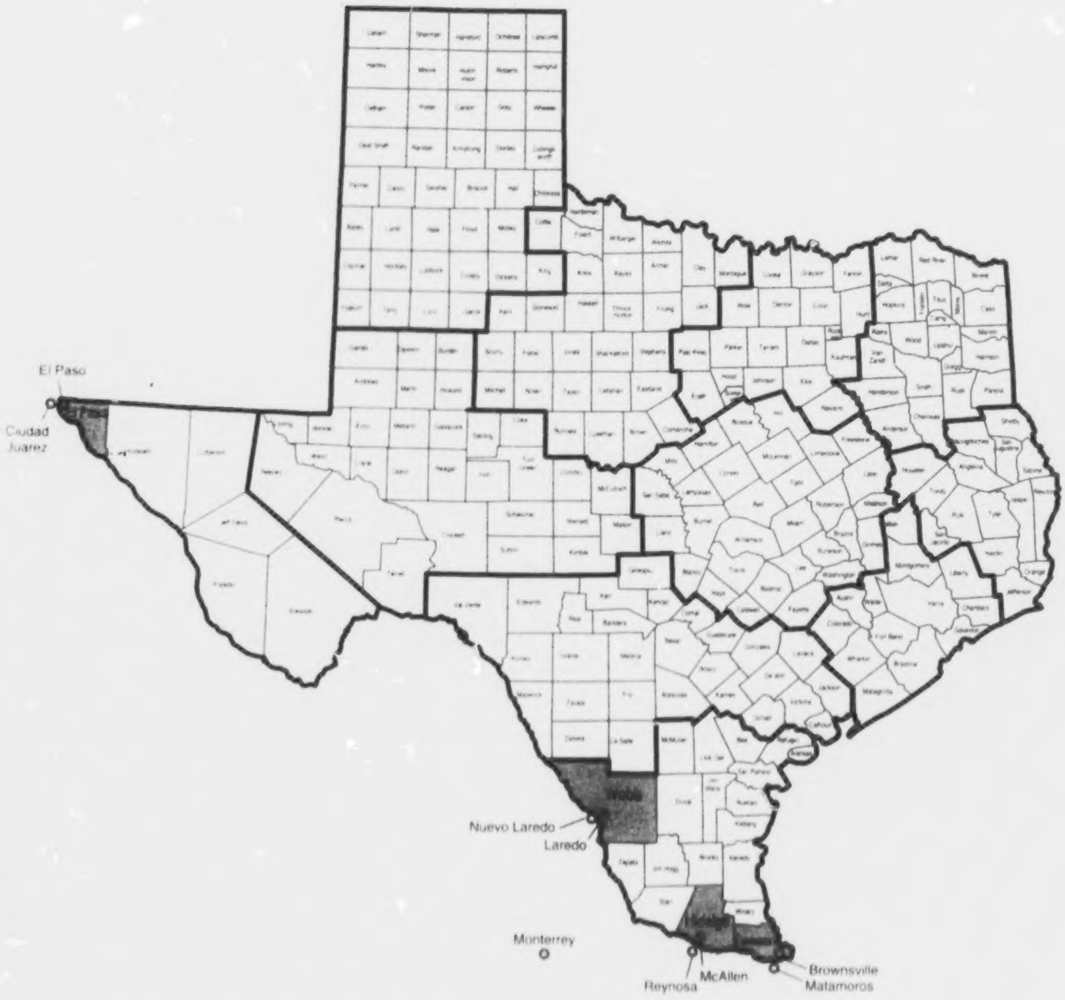

The Texas Border Survey was conducted in the four shaded counties shown.

County	**City**	**Mexican Sister City**
El Paso	El Paso	Ciudad Juarez
Webb	Laredo	Nuevo Laredo/Monterrey
Hidalgo	McAllen	Reynosa
Cameron	Brownsville	Matamoros

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Executive Summary

Introduction

In the spring and summer of 1996, the Texas Commission on Alcohol and Drug Abuse (TCADA), in association with the Public Policy Research Institute of Texas A&M University, conducted an in-person survey of substance use among 1,665 adult residents living in the Texas-Mexico border cities of Brownsville, El Paso, Laredo, and McAllen. In addition, another 504 residents of 51 different colonias in Hidalgo and Cameron Counties were queried about their substance use. Colonias are rural, unincorporated neighborhoods which are characterized by substandard housing and utility services.

Current Treatment Needs and Prevalence of Substance Use Among Border Adults

- TCADA estimates that about 122,100 adults living in the 13 counties bordering the Texas-Mexico border are currently dependent on alcohol or drugs (three or more negative DSM-III-R symptoms), and another 170,400 adults show signs of alcohol or drug abuse (one or two negative DSM-III-R symptoms). Of this group, about 70,000 are motivated for treatment and would be financially in need of publicly-funded treatment. Another 2,300 adults, or 1 percent of adults living in colonias in Texas, need, want, and are eligible for publicly-funded treatment.

- Motivation for treatment among those with substance problems was high–double the state average–despite the common concern that Hispanics might be reluctant to seek professional help for problems they perceive as being a family matter.

- Respondents who were dependent on drugs other than alcohol were especially motivated for treatment (67 percent). Motivation for treatment was very different in the colonias. Except for individuals who were dependent on drugs, the percentage of adults who were motivated for treatment was substantially lower in colonias than outside.

- While expense was cited as the most important reason for not seeking professional or medical help for physical or emotional problems, the most important reason cited for not seeking help for a substance abuse problem was people's feeling that they could get better on their own. In the colonias, however, expense was also an important reason for not seeking substance abuse treatment. Colonias residents were also likely to say that they would feel uncomfortable talking about their problem with anyone.

- Almost 29 percent of border adults had ever used an illicit drug, and over 8 percent had used one in the past year. The most prevalent drug by far was marijuana (6 percent in the past year) followed by cocaine (almost 3 percent in the past year). About 65 percent had drunk alcohol in the past year.

Comparisons to Other Populations

Comparison to Texas Adults Living Elsewhere in the State

- Border residents were less likely to have used illicit drugs within the past year than Texas residents living elsewhere in the state. They were also less likely to report having any alcohol- or drug-related problems. This finding was true for Hispanics and non-Hispanics alike.

- Rates of heavy drinking were similar for Hispanics living on the border and elsewhere in the state. Among non-Hispanics, heavy drinking was lower for border residents than for adults living elsewhere in Texas.

Comparison to Hispanics Nationwide

- As compared to Hispanics throughout the US interviewed as part of the National Household Survey on Drug Abuse, Hispanics living on the Texas-Mexico border were more likely to have used alcohol but less likely to have used illicit drugs in the past month. Rates of heavy drinking were identical for Border Hispanics and Hispanics nationwide.

Comparison to Mexican Border Cities

- Rates of substance use in El Paso, Brownsville, and Laredo, as reported in the TCADA survey, were compared to rates for Ciudad Juarez, Matamoros, and Monterrey respectively, as reported in a survey by the Mexican Ministry of Health.

- Rates of lifetime and past-year illicit drug use were three to five times higher in the US border cities as compared with their Mexican counterparts. Rates of alcohol use were more similar on the two sides of the border. For two of the three sister cities that were compared, rates of heavy drinking were lower on the US side than on the Mexican side.

Acculturation and Substance Use

Acculturation refers to the process of culture learning and behavioral adaptation that takes place as individuals are exposed to a new culture. For the purposes of this study, acculturation was categorized broadly into three groups: "high" (primary orientation toward United States culture, "moderate" (equal orientation toward United States and Mexican cultures), and "low" (primary orientation toward Mexican culture).

- The TCADA survey showed that acculturation for Hispanic adults was directly related to substance use behavior. Individuals who were the least acculturated had the lowest rates of alcohol use, heavy alcohol use, illicit drug use, and alcohol or drug problems. More acculturated Hispanics had substance use patterns that were indistinguishable from those of non-Hispanics.

- The effect of acculturation on substance use was especially pronounced for women. Hispanic women who were highly acculturated to US culture were about twice as likely as those least acculturated to have drunk any alcohol within the past year and ten times more likely to have used an illicit drug.

- Acculturation was strongly correlated with other factors. When the effects of education, income, age, gender, and site of residence were taken into account, acculturation level no longer showed an independent association with substance use behavior.

Other Factors Related to Substance Use

Driving While Intoxicated

- Border adults reported lower rates of driving while intoxicated (DWI) than the rest of the state. Although only 7 percent of border adults had ever been apprehended for driving drunk, some 28 percent of border adults admitted to having done so. Residents of El Paso were the most likely to have driven after having too much to drink (35 percent), while residents of Laredo were the least likely (11 percent). For comparison, about 42 percent of Texas adults statewide admitted to having sometimes driven while intoxicated.

Mental Health and Substance Use

- As compared to the population as a whole, adults who were dependent on alcohol or drugs had significantly higher rates of depression than average. However, adults who abused alcohol or drugs had about average rates of depression. Depression and other mental health disorders can complicate recovery from substance misuse and may precipitate relapse.

Drug Trafficking

- A large majority of residents in all sites perceived that drug trafficking was prevalent and most thought it was associated with corruption and crime. Only a few believed that it might have some positive economic benefits for the area or be a good way for people to raise themselves out of poverty.

- The perceived level of drug trafficking was not associated either with the perceived levels of drug availability in the community or with individuals' own personal drug use. Reported availability of drugs and reported personal drug use was actually lower in the sites where respondents reported higher levels of trafficking.

Availability of Drugs and Alcohol

- Over one-third of adults living on the border said it would be relatively easy for them to obtain drugs, such as marijuana, cocaine, crack, or heroin, if they had the money and wanted to do so. Almost 40 percent of border respondents also believed it was also relatively easy for school-aged children to get alcohol, such as beer, wine, or liquor, although only 13 percent said they saw any evidence in their neighborhood of substance use among children.

- Although 40 percent of adults said it would be relatively easy to obtain drugs, only about 8 percent said they frequently or occasionally saw people selling drugs in their neighborhood. This finding suggests that drug selling is not pervasive where most people live, but that people nevertheless believe that drugs are readily available to them.

Family Dynamics

- Respondents were asked a series of questions that assessed the levels of support and/or hostility they perceived in their families. Adults who reported high hostility and low support were the most likely to have used and misused alcohol or illicit drugs. Overall, high hostility levels were more closely related to increased use and abuse of substances than were low levels of support.

Problem Gambling

- Almost 3 percent of border adults were past-year problem or pathological gamblers, a percentage very close to that found among adults participating in the statewide household gambling survey. Gambling problems and substance abuse problems were highly correlated. Almost 5 percent of adults who had an alcohol-related problem, and 7.5 percent of those who had a drug-related problem, were also problem or pathological gamblers.

Substance Use and Misuse in Colonias

- Lifetime and past-year use of substances was fairly similar between residents of colonias and residents of the non-colonia urban areas in the same counties. However, colonia residents were only about half as likely as non-colonia residents to report symptoms of substance abuse or dependence. About 12 percent of colonia residents reported any alcohol problems in the past year, as compared to 20 percent of non-colonia residents from the same areas. About 3 percent of colonia residents reported drug-related problems, as compared to 6 percent living outside colonias.

Chapter 1. Introduction and Methodology

Introduction

The Texas Survey of Substance Use on the Texas-Mexico Border and in Colonias was undertaken to fill the gap in knowledge about patterns of alcohol and drug use and abuse among adult residents of the Texas-Mexico border. The study was funded by a grant from the Center for Substance Abuse Prevention, and the results will be used in prevention and treatment planning among border populations. The findings presented in this report are based on in-person interviews conducted in late 1996 among 2,169 adult residents of the Texas border area, including those living in colonias. The Texas Commission on Alcohol and Drug Abuse (TCADA) was primarily responsible for the design of the study, the survey instrument, data analysis, and the final report of the findings. The Public Policy Research Institute of Texas A&M University directed the sampling and interviewing, computed sampling weights, and contributed to other parts of the project as well. A subsequent phase of this project will include a school-based survey of substance use among adolescents living on the border.

The findings presented in this report are based on in-person interviews conducted among 2,169 adult residents of the Texas border area.

Almost half of the 2,000-mile, US-Mexico border is located in Texas, stretching for 889 miles along the Rio Grande River from Brownsville to El Paso. The immediate border area comprises 13 counties, but others are sometimes considered part of the larger border area.[1] It is a distinctive and complex region, comprising long stretches of sparsely populated areas punctuated by large and smaller cities that are paired with adjacent cities on the Mexican side (see Appendix A). People, money, and goods move easily across the international boundary, melding populations, cultures, and economies. According to the US Census conducted in 1990, three of the top ten fastest-growing metropolitan areas in the United States are located on the Texas-Mexico border: Laredo (second), McAllen (third), and Brownsville (seventh).

Drug trafficking and poverty conditions are also prevalent along the Border and contribute to the impression that alcohol and drug use may be high among residents. Adults living in Hidalgo county, for example, recently stated that drug abuse was the "number one" most serious problem facing their community, out of over 45 issues asked about in a community needs survey (Strategic Interfaces, 1991). Illicit drug use has been implicated as a major cause of death among young Hispanic males and linked to high rates of criminal activity and school dropout rates found in many communities (De La

Rosa, Khalsa and Rouse, 1990). The high rates of unemployment, low education, and relatively young population age structure that characterize the area are also factors associated with greater risk for substance use (Harrison and Kennedy, 1996).

On the other side of the coin, the high rates of immigration and varying degrees of acculturation among residents complicate expectations of what substance use patterns may exist on the border. Research has found that substance use behavior is influenced by the degree to which people are integrated into the mainstream culture, as well as by the culturally-specific patterns of substance use in their country of origin. Rates of drug use in Mexico, as reported in the Mexican Household Survey (Secretaría de Salud, 1994), are much lower than those that are found in the United States, and this drug use behavior may persist among immigrants to the US. The maintenance of traditional Hispanic cultural values, such as the importance of the family and prescribed gender roles, may also have a moderating influence on the use of drugs even among Mexican Americans born in the United States. The border is thus an area of transition between two cultures, and the coexisting risk and protective influences make the study of substance use and abuse in this region particularly intriguing.

Socio-Demographic Description of the Border Region

Nearly one in 10 Texans reside in one of the 19 counties comprising the Texas-Mexico border region.

The following general description of the Texas border region is excerpted from the *Texas Border Fact Book* (Texas Centers for Border Economic Development, 1995):

> *Nearly one in 10 Texans reside in one of the 19 counties comprising the Texas-Mexico border region. The population in border counties is growing faster than the state as a whole as a result of both increased migration and higher natural increase (more births than deaths). As a group, border residents are younger, less educated, and poorer than other Texans. Three-fourths speak a language other than English and nearly one-third were born in a foreign country, predominantly Mexico. Approximately half of those who speak another language report that they do not speak English very well, including school-aged children. Little more than half (53.7 percent) of border residents over the age of 25 have completed high school, compared to 72 percent of all Texas residents. Fewer than 35,000 of the 1.5 million border inhabitants hold a graduate or professional degree.*
>
> *Along the border, residents of the Upper Rio Grande Region [El Paso area] have the highest median income, although it is still significantly lower than that of the rest of the state. The difference between Texas as a whole and border county*

per capita income exceeds $5,000. Nearly one-third of border families and one-half of female-headed households live below the poverty level, as defined by the federal government, compared to 14 percent of all Texas families. In 1989, the poverty level for a family of four was $12,674 or less. Poverty in most of these border counties … is among the worst in the United States.

Poverty in most of these border counties … is among the worst in the United States.

Although absolute housing costs are lower, border residents pay a slightly greater percentage of their income for housing costs. A greater proportion of households in the border region lack what many consider to be household essentials–complete plumbing and kitchens, telephones and vehicles. Household size is larger on the border with an average of 3.44 persons per household. The average size of households in Texas is 2.73 persons.

Two-thirds of Texans over the age of 16 are in the labor force, compared to 58 percent of border residents. Part of this difference can be accounted for by fewer women with young children in the labor force in border counties. Border unemployment rates are higher than those of Texas (Texas Centers for Border Economic Development, 1995).

Previous Research on Substance Use Along the Border

While increasingly more research is appearing on substance use among Hispanics in the United States (e.g. Mayers, Kail and Watts, 1993; De La Rosa, Khalsa and Rouse, 1990; NIDA, 1995; NCADI, 1985; CSAP, 1996), epidemiological data on drug and alcohol use in the border area is still scanty. An important contribution to knowledge of this area has been made by Harrison and Kennedy (1994; 1996) who used data from the National Household Surveys of 1988, 1990, and 1991 to compare the border counties in Texas, New Mexico, Arizona, and California with the rest of the country. In the more recent (1991) survey, use of alcohol, tobacco, and other drugs was found to be generally similar or lower in the border area as compared to the United States as a whole. Hispanics particularly had lower rates of lifetime and past-month marijuana use than Hispanics living elsewhere, and lower lifetime rates of alcohol, cocaine, and inhalant use. On the other hand, recent use of cocaine was somewhat higher among border residents than non-border residents, and this was especially true for border Hispanics as compared to Hispanics not living on the border. Harrison and Kennedy's analysis of pooled data from the 1988 and 1990 surveys showed somewhat different results with regard to specific drug comparisons, but their overall conclusion was again that rates of border substance use were not any higher than elsewhere in the country.

A Border Epidemiology Work Group has been formed under the auspices of the National Institute on Drug Abuse (NIDA) and Mexico's Ministry of

Health to monitor trends in alcohol and drug abuse indicators on both sides of the border. A report of its August 1997 conference proceedings presented data from several border sites gathered from substance abuse treatment programs, hospital emergency departments, coroners' offices, and law enforcement agencies (BEWG, 1997). This information provides another perspective and a useful complement to survey-based data. TCADA publishes similar reports from Texas cities and areas on the border in its annual *Current Trends in Substance Use* series.

> *The present study hopes to contribute to this small but growing body of knowledge about substance use along the Texas-Mexico border.*

An earlier study concerning substance use on the border was conducted in 1979 by the Centers for Disease Control. This study was based on a survey of alcohol use among Mexican American and Anglo women living in 51 border counties in Texas, New Mexico, Arizona, and California. The researchers found that Mexican American women were more likely to abstain from drinking alcoholic beverages, while Anglo women were more likely to drink alcoholic beverages and to drink them heavily. However, much of this difference could be explained by education and level of acculturation; once these factors were taken into account, drinking patterns of Anglos and Hispanics were more similar (Holck and Warren, 1984).

Some specialized studies have been carried out in more local areas of the Texas border. In 1996, the Paseo del Norte Health Foundation asked 1,008 adults in El Paso about their drinking habits as part of a health status survey, and reported that binge drinking (five or more drinks at one sitting within the past month) was slightly higher among El Pasoans than among adults in the state as a whole (Paseo del Norte, 1997). A study conducted in 1979 among low-income Mexican American women in Brownsville (Maril and Zavaleta, 1979), found high alcohol abstinence rates and strong negative sanctions against female drinking in the Mexican American community at that time. Another study by Valdez (1993) studied the relationship between poverty, crime, and drugs among Mexican Americans in Laredo, Texas, as well as Chicano heroin addicts and the gray market in prescription drugs on the border.

The present study hopes to contribute to this small but growing body of knowledge about substance use on the Texas-Mexico border.

Methodology

The Sample

The sample of border residents interviewed for this study was drawn from the urban areas of the four metropolitan counties on the Texas border. These four counties together contain about 90 percent of the total population of the border. Sampling was carried out in El Paso (El Paso County), Laredo (Webb County), McAllen (Hidalgo County), and Brownsville (Cameron County).[2]

Table 1.1. Selected Demographic Characteristics of Respondents Living on the Texas-Mexico Border, by Site: 1996

	Four Sites Combined*	El Paso	Laredo	McAllen	Brownsville	Colonias
Sample size	1,665	455	507	206	497	504
Gender						
Male	46.3%	45.8%	46.4%	48.1%	44.7%	52.6%
Female	53.7%	54.2%	53.6%	51.9%	55.3%	47.4%
Age category						
18-24	17.8%	18.5%	19.4%	17.2%	16.1%	21.4%
25-34	24.3%	25.3%	25.6%	24.1%	21.5%	25.2%
35+	57.9%	56.2%	55.0%	58.7%	62.4%	53.4%
Ethnicity						
Hispanic	75.0%	65.9%	93.6%	82.0%	78.1%	89.8%
Other	25.0%	34.1%	6.4%	18.0%	21.9%	10.2%
Education						
Non-High school graduate	42.6%	41.4%	49.9%	48.8%	33.3%	60.7%
High school graduate	23.9%	23.5%	23.4%	19.7%	30.7%	22.9%
Beyond high school	33.5%	35.1%	26.7%	31.5%	36.0%	16.4%
Annual household income						
Less than $20,000	61.2%	60.4%	77.0%	58.7%	59.0%	83.1%
$20,000 - $40,000	27.6%	32.4%	17.7%	23.1%	27.6%	14.6%
More than $40,000	11.2%	7.2%	5.3%	18.2%	13.4%	2.3%
Marital status						
Married or living with partner	56.4%	50.8%	57.3%	59.3%	65.4%	66.7%
Widowed	5.8%	5.6%	7.0%	6.9%	4.1%	3.7%
Divorced or separated	14.9%	18.3%	12.5%	14.4%	8.9%	7.3%
Never married	22.9%	25.3%	23.2%	19.5%	21.6%	22.4%
Household characteristics						
Have children in household	61.5%	53.5%	66.9%	62.7%	76.0%	71.3%
Average household size	3.7	3.4	4.1	3.5	4.5	4.7
Have telephone in household	87.7%	89.0%	87.9%	77.2%	98.9%	74.8%
Employment status						
Full-time employment	36.1%	32.3%	29.5%	38.4%	44.9%	27.3%
Part-time employment	10.8%	12.8%	15.6%	8.3%	7.2%	7.1%
School	10.6%	9.0%	6.6%	10.6%	16.4%	12.8%
Homemaker	26.1%	30.0%	27.8%	21.3%	22.4%	36.5%
Disabled	3.7%	3.1%	3.3%	6.6%	1.6%	2.2%
Retired	9.3%	10.1%	6.0%	11.4%	6.1%	5.2%
Unemployed	3.4%	2.7%	11.1%	3.4%	1.4%	9.0%
Employment type						
Professional	18.4%	22.5%	8.8%	11.0%	24.5%	5.8%
Managerial	7.6%	3.3%	3.4%	15.5%	8.1%	3.7%
Sales/service	38.2%	34.7%	49.6%	41.6%	36.1%	33.5%
Craftsmen/laborers	35.8%	39.6%	38.2%	31.9%	31.3%	57.0%

Table 1.1. Selected Demographic Characteristics of Respondents Living on the Texas-Mexico Border, by Site: 1996 (Cont.)

	Four Sites Combined*	El Paso	Laredo	McAllen	Brownsville	Colonias
Religion						
Protestant	29.4%	35.4%	13.2%	30.0%	22.4%	21.5%
Catholic	67.8%	61.5%	85.2%	66.8%	75.7%	76.8%
Other	2.8%	3.1%	1.6%	3.2%	1.9%	1.7%
Importance of religion						
Very	56.4%	54.1%	64.3%	64.9%	46.4%	61.3%
Somewhat	28.6%	27.1%	29.2%	26.1%	35.5%	30.8%
Not very or not at all	15.0%	18.8%	6.5%	9.0%	18.1%	7.9%

Note: Data are weighted.
*Total includes the sample from El Paso, Laredo, McAllen, and Brownsville and does not include the colonias.

The number of people interviewed was 455 in El Paso, 507 in Laredo, 206 in McAllen, and 497 in Brownsville.[3]

Within each site, the sampling was a multi-stage cluster design involving the random selection of census block groups, blocks within the block groups, and households within the blocks.[4] Adults within the household were chosen to be interviewed based on the need to achieve an equal representation of both genders and three age categories (ages 18-24, 25-34, and 35+) within each site so that there would be enough individuals for reliable analysis within age and gender subgroups. The samples were not screened for ethnicity, and they contained a slightly higher proportion of Hispanics than exists in the general population in those areas. In the data analysis, the data were weighted so that they resembled the age, gender, and ethnic distribution of each site and the relative population size of each site as a proportion of the total. The weights also adjusted the sample for the sizes of clusters and the number of clusters sampled at each stage. Therefore, each respondent effectively represented a specific number of adults in the respondent's age, gender, and ethnic category. The SUDAAN statistical program was used for analysis to produce standard errors that take account of complex sampling design and permit adjustment of standard significance tests, which are based on the assumption of a simple random sample.[5]

The four sites were chosen to be representative of the border as a whole, and together represent 90 percent of the 13-county border population.

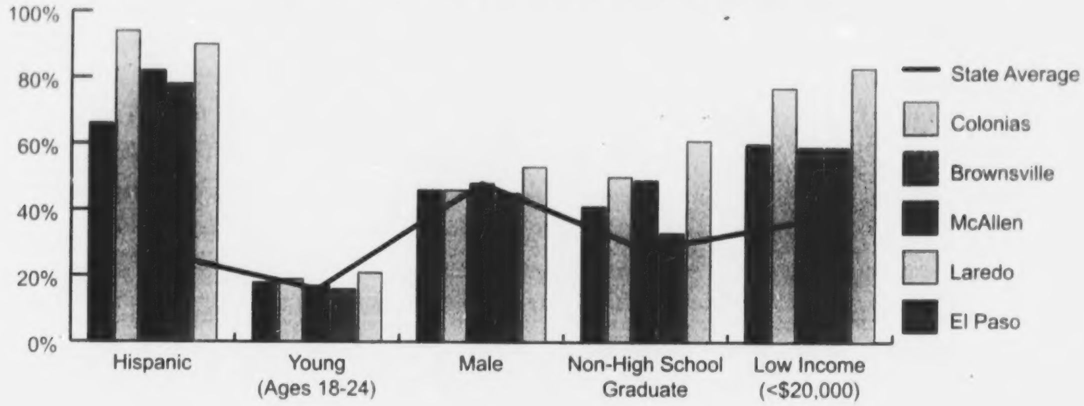
The four sites were chosen to be representative of the urban populations of the border as a whole, and together represent 90 percent of the 13-county border population. Nevertheless, while the border region is homogeneous in many ways, there may be important differences in substance use and other behaviors from place to place. Some of these may be a consequence of different demographic characteristics, while others are likely due to the history and culture of the settlements. In this report, when information is presented about the border as a whole, significant differences among the sites are also noted, where they were detected.

Table 1.1 presents a demographic description of the sample for each of the four sites. Table B1 in Appendix B shows some selected demographic variables for the four counties from which the samples were drawn. Further details of the survey methodology are available from TCADA as a separate Technical Report.[6]

In addition to the primary sample of border residents, two adjunct samples were drawn for this study. The first consisted of 504 residents of 51 different *colonias* in Cameron and Hidalgo counties. Colonias are unincorporated settlements that develop in rural areas outside of cities. They consist of generally substandard houses constructed on small lots and usually have inadequate drinking water, sewage, and garbage collection. While they often resemble shantytowns or slums of developing countries, a major difference is that, in the colonias, usually the land and the houses built on it are owned or are being purchased under legal contract by the colonia residents. Little is known about drug and alcohol use patterns in these kinds of settlements, and this study aims to add to our knowledge in this area. Further information about the colonia sample and survey findings are presented in Chapter 8.

The second adjunct sample consisted of 259 respondents who were interviewed about their alcohol and drug use and from whom a sample of hair was also collected and analyzed chemically to detect the presence of cocaine, opiates, methamphetamines, and PCP. Hair analysis can reveal the use of drugs for the three-month period preceding the interview, and comparison of those

Figure 1.1. Socio-Demographic Characteristics of Respondents Living on the Texas-Mexico Border, by Border Site and State Average: 1996



results with self-reported drug use can help us to understand the extent of probable underreporting of sensitive behaviors in the population surveyed. Results of this analysis are discussed in Chapter 9.

Figure 1.1 displays some socio-demographic characteristics of the sample in each of the four sites and in colonias, as well as the state average of these characteristics as reported in the 1990 US Census.

As compared to the state as a whole, adult border residents were overwhelmingly more likely to be Hispanic and to have lower education and income levels. They were similar to the rest of the state in adult age distribution and gender composition. When all ages, not just adults, were considered, the border sites were more youthful than the rest of the state, with 35 percent of the population under the age of 18 as compared to the state average of 29 percent.

Among the survey sites themselves, there was some variation in ethnicity, income, and education levels. Although the majority of the population in each site identified themselves as Hispanic, respondents from El Paso were less likely, and those from Laredo and from the colonias more likely, to be Hispanic. Brownsville had the highest proportion of high school graduates. Income levels were lower in Laredo than elsewhere, except for the colonias, which had the highest proportions of low-income individuals and those with less than a high school education. All sites were similar in age and gender structure, with the colonias having a very slightly higher proportion of males and of younger adults.

Interviews

Interviews were carried out in spring and summer of 1996, with some late data collection extending through winter. All interviews were conducted in person by intensively-trained, bilingual, primarily Hispanic interviewers who were local residents and had good knowledge of the communities surveyed. In-person interviews allowed for representation of all households, whether or not they had telephones.[7] It also allowed the opportunity to establish good rapport and personal contact with respondents; for Hispanics this may be a particularly important factor in obtaining reliable information (Marín and Marín, 1991). The overall completion rate (number of completed interviews divided by the sum of completes and refusals) was 85 percent in the four sites[8] and 97 percent in the colonias. Interviews were carried out in either English or Spanish, according to the preference of the respondent. Approximately two-fifths of all interviews (43 percent) were done in Spanish, but the percentage varied by site, ranging from 26 percent in Brownsville to 63 percent in Laredo.

> *All interviews were conducted in-person by intensively-trained, bilingual, primarily Hispanic interviewers.*

The interview asked about lifetime, past-year, and past-month use of alcohol, tobacco, and nine other categories of drugs. It asked a series of questions about problems experienced by users to determine a diagnosis of substance abuse or dependence. Other questions related to past chemical dependency treatment experiences and current desire for treatment, physical and emotional health, involvement with the law, gambling, neighborhood safety, availability of drugs in the community, drug trafficking, family dynamics, living conditions, and acculturation levels. Respondents' demographic characteristics were also ascertained from the survey.

Questions of Interest

The study was designed to gather information that could be used to estimate the need for substance abuse prevention and treatment among border residents. Risk and resiliency factors were also examined, so that strategies for the reduction of substance use and problems could be developed. Some of the questions that this study hoped to address included the following:

The study was designed to gather information that could be used to estimate the need for substance abuse prevention and treatment among border residents.

- What is the lifetime and current prevalence of tobacco, alcohol, and other drug use among adult residents of the border region?
- What is the extent of alcohol and drug abuse and dependence among this population?
- Are there differences in the prevalence of substance use and misuse among the four sites surveyed? Between younger and older respondents? Between Hispanics and non-Hispanics? Between men and women? Among respondents with different educational attainments and different income levels?
- Do residents of colonias have different substance use behaviors than individuals from the same area who do not live in colonias?
- How does the substance use of Hispanics living along the border compare with that of Hispanics living in other parts of the state, in other parts of the country, and in sister cities on the Mexican side of the border?
- How is acculturation related to substance use and misuse?
- How do residents of the border area perceive their communities in terms of safety, availability of drugs, neighborhood drug use, and drug trafficking? How do these perceptions correlate with their own personal drug use?
- To what extent are respondents who have alcohol- or drug-related problems motivated to seek treatment? What barriers do they perceive to getting treatment?

- What legal repercussions have respondents experienced as a result of their alcohol or drug use? How prevalent is driving under the influence of alcohol or other drugs?
- Do individuals who misuse substances also experience problems in other areas, specifically in mental health and compulsive gambling?
- What do the study findings imply for prevention and treatment efforts among residents of the border?

In addition, the study hoped to shed some light on some methodological issues, such as the following:

- Do face-to-face surveys produce different results than telephone surveys of the same population?
- Do residents of households without telephones have different substance use behaviors from residents of households with telephones?
- Are survey findings biased by the desire to conform to "socially acceptable behavior?"
- Can analysis of hair samples be used to estimate the extent of substance use misreporting?

Limitations of the Study

All sample surveys are subject to some inaccuracy due to lack of complete population coverage, inaccuracies of self-reported information, and sampling error. Careful scientific methods are employed in TCADA surveys to minimize these sources of potential bias. In this study, maximum representativity was sought by careful random sampling, oversampling of harder-to-reach groups, and procedures designed to enhance participation. Face-to-face interviewing was carried out to ensure coverage of individuals who did not live in households with telephones as well as to maximize rapport and increase reliability of responses. Assurances of anonymity and confidentiality were emphasized to respondents in order to overcome reluctance to disclose sensitive behavior. In the analysis of the results, tests of statistical significance were employed to control for the variability of response and determine whether or not observed differences between groups were likely to be due to chance. Unless otherwise noted, the results reported in this study were statistically significant.

In this study, maximum representativity was sought by careful random sampling, oversampling of harder-to-reach groups, and procedures designed to enhance participation.

Several validity checks were performed on the quality of the data itself. For instance, interviewers were asked after the interview to assess the respondent's overall understanding of questions and truthfulness in responding. Although the majority of respondents were rated as high (6 or 7 on a 7-point scale) in truthfulness (79 percent) and understanding (87 percent), 17 cases were dropped from analysis because they were rated as low or very low (1 or 2) in understanding or truthfulness. In addition, a fake drug was included among the substances asked about, in order to try to weed out respondents who might be over-reporting their drug use by admitting use of all drugs without discrimination. Only seven individuals said they had used this fake drug. The overall patterns of response for those individuals were scrutinized for indications of across-the-board unreliability, but none were found.

The question has been raised as to whether response patterns among Hispanics may differ in systematic ways from those of other racial/ethnic groups. For instance, some research suggests that, as compared to Anglos, Hispanics may tend to favor more extreme response categories, to acquiesce with statements regardless of their content, and to provide "socially desirable" responses.[9] But other research has not found these effects. The level of acculturation of respondents may be a mediating factor in how much Hispanics differ from other respondents in response patterns.

In order to examine the possible extent of "socially desirable" reporting in this survey, five questions that measure a tendency to social desirability were asked (Hays et al., 1989). The questions ask about behaviors that most people do to some extent, and a consistent pattern of extreme responses ("I never feel resentful when I don't get my own way," "No matter whom I'm talking to, I'm always a good listener") suggests that social desirability may be an important value to that respondent and may affect survey responses. Hispanics in the sample on the whole had a slightly higher tendency to endorse items that reflected social desirability than non-Hispanics, but the difference was not large (a half point on a 6-point scale). A tendency to give socially desirable responses was also slightly greater among older people, and those with low incomes, low education and low acculturation, and among residents of Laredo.

It is not known to what extent social desirability may affect responses. Some studies have shown that social desirability response bias may result in moderate underestimates of rates of heavy drinking and drug use (Welte and Russell, 1993). Others speculate that individuals to whom social desirability is a strong value will also tend to actually behave in a manner they perceive as more socially desirable. This would mean that, if they perceive heavy substance use as socially disapproved, they will be more likely to refrain from using.[10] The possibility that social desirability and response patterns could affect responses should be borne in mind when interpreting results. However, because of the efforts made by interviewers to establish rapport, ensure confidentiality, and stress the importance of providing accurate answers, it is anticipated that these effects were reduced as much as possible.

Finally, it should be emphasized that this is a survey only of adults living in households in the four major metropolitan areas of the border and in colonias in two counties. It, therefore, does not cover individuals who are homeless or institutionalized (hospitals, correctional institutions, dormitories, or military quarters), individuals living in rural areas other than the colonias, or youths younger than 18. Information on the substance use patterns of these groups would be desirable in order to present a complete picture of substance use on the border.[11]

Endnotes

[1] For example, the University of Texas Border Health Coordination Office considers 32 counties that lie within 60 miles of the Rio Grande River to be part of their study and service area. The US Census Bureau uses a 16-county definition (Harrison and Kennedy, 1996). The Texas Centers for Border Economic Development cover 19 counties. The Texas Office of the Attorney General includes 47 counties in its definition of the border. The US Department of Housing and Urban Development defines the border region as the area within 150 miles of the US-Mexico border, excluding metropolitan statistical areas with populations exceeding 1 million.

[2] The percentage of each of the surveyed counties which is urban is about 98 percent for El Paso County, 93 percent for Webb County, 77 percent for Hidalgo County, and 79 percent for Cameron County.

[3] These totals reflect the exclusion of 17 individuals who, at the conclusion of the interview, were judged to be very low in understanding or truthfulness by their interviewers and were therefore omitted from the analysis.

[4] In a true random sample, each person in the sample is picked from the entire population. In a cluster sample, small geographic units are sampled, then households within the areas are sampled, and finally an individual in the household is selected. This is the only realistic way to do household-based samples since no list of the population exists from which to draw a true random sample.

[5] The data presented in this report are based on a sample drawn such that confidence intervals for all estimates can be ascertained within certain probabilistic limits. In other words, each percentage presented in the report is an estimate of the "true" percentage that would be found if the entire population had been interviewed instead of a sample; the "true" percentage would fall within a range around the estimate that is called the confidence interval or margin of error. Although for editorial convenience, findings are presented without these margins of error, the reader should remember that all estimates in this report are based on a sample and are therefore subject to sampling error when generalizing to the population.

[6] James Dyer, et al. ***Methodology Report for the 1996 Survey of Adult Drug and Alcohol Use Along the Texas-Mexico Border,*** (College Station, TX: Public Policy Research Institute, Texas A&M University, June 1998).

[7] According to the 1990 Census, between 9 and 17 percent of households in the counties represented did not have telephones. This compares with an average of 9 percent for the state as a whole.

[8] The completion rate was 77 percent in El Paso, 86 percent in Laredo, 74 percent in McAllen, and 97 percent in Brownsville.

[9] See Marín and Marín (1991) for an overview of this research.

[10] Interestingly, a study of middle school children in Boston found that higher social desirability scores correlated with reports of *greater* substance use and more positive attitudes towards excessive alcohol consumption behaviors (Carifio, 1994). In this younger population, such behavior was presumably considered more socially desirable.

[11] According to the 1990 US Census, between 1 and 2 percent of the population in the four counties surveyed lived in institutions or were homeless. The rural population was reported in the census as 2.5 percent in El Paso County, 7.1 percent in Webb County, 20.8 percent in Cameron County, and 23.5 percent in Hidalgo County.

Chapter 2. Prevalence of Substance Use

Introduction

In Chapters 2 through 7 of this report, findings presented for the border population are derived from the samples drawn in the four metropolitan survey sites, excluding colonias. Data from the colonias are analyzed separately in Chapter 8. Comparisons of border and non-border populations are presented in Chapter 4.

Substance use patterns are presented for different demographic groupings, broken down as follows: site (El Paso, Laredo, McAllen, and Brownsville); gender (male, female); age category (18-24, 25-34, and 35+); ethnicity (Hispanic and non-Hispanic); education (non-high school graduate, high school graduate, and beyond high school); and annual household income (below $20,000, $20,000 to $40,000, and greater than $40,000). Since many of these variables have overlapping effects, subsequent multivariate analyses were done to examine the *net* association of each demographic factor with substance use and misuse.

Prevalence of Licit Drug Use

Full prevalence tables, showing recency of use of tobacco, alcohol, inhalants, and eight other classes of drugs, by demographic category, are presented in Appendix F. Table 2.1 summarizes rates of lifetime and past-year substance use for the border sample as a whole (excluding colonias.)

Lifetime and Past-Year Use of Licit Drugs

Tobacco. Over two-thirds (69 percent) of border residents said they had smoked cigarettes or used other forms of tobacco at some time during their lives. About one-third of respondents (35 percent) were current (past-year) smokers.

Alcohol. Almost 85 percent of border residents had drunk alcohol (beer, wine, liquor, or mixed drinks) during their lives, and 65 percent had drunk alcohol during the past year. Some 5 percent of adults could be considered heavy drinkers, those who have consumed five or more drinks on five or more occasions during the month previous to the survey.

Inhalants. The category of inhalants, also called volatile solvents, comprises substances that people sniff, huff, or breathe in for the intoxicating effects. They include many household substances including spray paint, glue, correction fluid, gasoline, and gasses such as amyl nitrate, ether, freon, and nitrous oxide. Although the use of inhalants to get high is considered drug misuse, the substances themselves are licit since they are readily available for purchase for legitimate purposes. About 6 percent of adults on the border had ever used inhalants, but less than 1 percent had used them during the past year.

Demographic Differences in Current Users of Licit Drugs

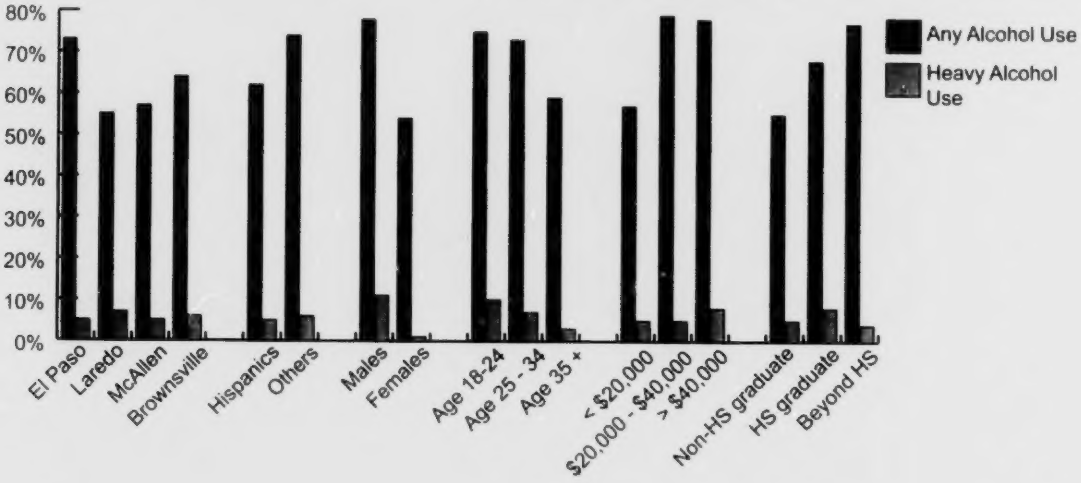
Tobacco. As was true for almost all substances, men were more likely than women to be current (past-year) smokers. Individuals older than age 35 were less likely than those younger than 35 to be current smokers, despite the fact that the lifetime prevalence of smoking was the same for all age groups. This suggests that, while experimentation with cigarettes is widespread and begins early (at age 16 on average), many individuals give up this habit as they grow older.

There was no significant difference in the prevalence of past-year smoking by site or ethnicity. However, non-Hispanic adults who had ever smoked were more likely to have given up the habit than Hispanic adults. While Hispanics were less likely to have ever experimented with cigarettes at all and while they began smoking over a year later on average than non-Hispanics, some 53 percent of Hispanics who had ever smoked were still currently smoking, as compared to only 44 percent of non-Hispanics who had ever smoked. Smoking is particularly harmful for individuals who have diabetes, and may be a risk

Table 2.1. Prevalence and Recency of Substance Use and Substance Problems by Respondents Living on the Texas-Mexico Border in Four Sites: 1996

	Ever Used	Past Year
Tobacco	68.6%	34.6%
Alcohol	84.9%	65.3%
Past-Month Heavy Alcohol Use	-	5.2%
Inhalants	6.0%	0.4%
Any Illicit Drug	28.6%	8.3%
Marijuana	27.2%	6.0%
Cocaine	10.3%	2.7%
Crack	3.4%	1.8%
Uppers	8.7%	0.9%
Downers	3.6%	1.4%
Heroin	2.0%	0.3%
Other Opiates	1.0%	0.5%
Psychedelics	8.7%	1.0%
Alcohol Problems	-	23.3%
Drug Problems	-	5.1%

Figure 2.1. Past-Year Use of Alcohol and Heavy Drinking, by Socio-Demographic Characteristics of Respondents Living on the Texas-Mexico Border: 1996



factor for its development as well (Reddy, 1998). Since Hispanics develop diabetes at twice the rates of the general population, smoking should be especially discouraged among this population. Anti-smoking messages must not only be geared toward preventing adolescents from smoking in the first place but also toward encouraging older adults to quit.

Alcohol. Figure 2.1 displays the percentage of adults who used alcohol within the past year and the percentage who drank heavily within the past month, by demographic characteristics.

Hispanic respondents were somewhat less likely to have drunk alcoholic beverages than non-Hispanics in the past year.

Adults living in El Paso were the most likely to have drunk alcohol in the past year, and those in Laredo were the least likely. Hispanic respondents were somewhat less likely to have drunk alcoholic beverages than non-Hispanics. Women were significantly less likely than men to have drunk alcohol. However, the dramatic difference between men and women held true only for Hispanics; among non-Hispanics living on the border, the rate of past-year drinking was identical for males and females. This latter finding is at odds with the situation among Texas adults statewide, in which women in all racial/ethnic groups were less likely than their male counterparts to have drunk alcohol during the past year. But even statewide, the difference between male and female rates was far greater for Hispanics than others.

As was true for tobacco and most other substances, adults over the age of 35 were less likely than those younger to have had a drink in the past year. But experimentation with alcohol was more universal, with the same percentage of adults at any age having tried alcohol at some point during their lives.

Although the legal age for drinking is 21 in Texas, almost 79 percent of respondents who had ever drunk alcohol said they had begun drinking before that age. Consistent with national findings (Johnson and Gerstein, 1998), the current survey also provides evidence that age at first alcohol use has been declining over time. The respondents aged 18 to 24 said they had first begun drinking at about age 15, on average, while those 35 and older said they had not begun drinking until almost age 20.

Levels of past-year alcohol use increased directly with education, from 55 percent of those who had not completed high school to 77 percent of those who had some education beyond high school. Individuals with the lowest household income levels ($10,000 or less) were the least likely to have used alcohol in the past year, but above that threshold, there was little difference in use by income.

Heavy drinking. About 5 percent of adults in the border region could be considered heavy drinkers; that is, within the past month, they had consumed five or more drinks on five or more occasions.[1] "Binge" drinking has been defined in some studies (e.g. Paseo del Norte, 1997) as having consumed five or more drinks on at least one occasion in the past month. By this less rigid definition, almost 23 percent of border adults had engaged in binge drinking.[2]

Heavy drinking followed some but not all of the patterns observed for alcohol use in general. As with overall past-year use, it was more frequent than average among males (11 percent) and those under age 35 (8 percent). But unlike past-year use, there was no significant difference in heavy drinking among sites or income levels or between Hispanics and non-Hispanics. Interestingly, however, unlike general use which increased with education, heavy alcohol use was lowest for those with education beyond high school (3.5 percent), and highest among individuals who had graduated from high school only (8 percent).

Heavy alcohol use was lowest for those with education beyond high school and highest among those who only graduated from high school.

Inhalants. Inhalants are generally thought of as substances used mostly by adolescents, and use is sometimes said to be more prevalent among Hispanics than other racial/ethnic groups.[3] Although Hispanics were only half as likely as non-Hispanics to have ever used inhalants in their lifetime, they were slightly more likely to have used them in the past year, and they first began using about a year and a half earlier than non-Hispanics (at age 15½ on average). The most common substance inhaled was spray paint. Even among Hispanics, however, past-year use of inhalants was confined to less than 1 percent of the population.

Multivariate Analysis: Demographic Correlates of Drinking and Heavy Drinking

Multivariate logistic regression was performed to help disentangle the overlapping effects of the demographic variables on the probability of having used alcohol in the past year as well as on the probability of heavy drinking. This kind of analysis can show to what extent a particular demographic characteristic increases or decreases the relative odds of drinking or heavy drinking, while "controlling for" or holding constant the effect of related demographic variables. For example, Hispanics and those with lower education and income levels were all less likely to drink alcohol. However, Hispanics overall have lower education and income levels than non-Hispanics. Does this mean that education and income "explain" their lower alcohol use? Do Hispanics drink less even when they have the same education and income levels as non-Hispanics?

Past-year drinking was more prevalent among younger people, males, those with higher incomes, and residents of El Paso.

Appendice C, Tables C1 and C2 present the statistical results of the multivariate analyses. In addition to the demographic factors discussed above (age, gender, ethnicity, site, education, and income), the degree of acculturation and the social desirability score were included as co-factors.

The multivariate analysis confirmed that **past-year drinking** was more prevalent among

- younger people,
- males,
- those with higher incomes, and
- residents of El Paso.

When all of the variables were considered together, there was no longer any significant independent effect of ethnicity or education on the likelihood of drinking. This is because the ethnic difference (Hispanics being less likely to drink) and educational difference (higher educated being more likely to drink) occurred only in El Paso, but not in the other sites. Once the effect of living in El Paso was taken into account, border Hispanics as a whole were no more or less likely than border non-Hispanics to have drunk alcohol in the past year.

The multivariate analysis also showed that, when the effect of all variables taken together was considered, the only variables that predicted **heavier drinking** were

- being male and
- not having gone to college.

Prevalence of Illicit Drug Use

Illicit drugs asked about included marijuana, cocaine, crack, uppers or stimulants, downers or sedatives, heroin, other opiates such as codeine, and psychedelics or hallucinogens. Table 2.1 shows the percentage of adults who had ever used each of the drugs asked about, and the percentage who had used them in the past year. See Appendix F for complete substance use prevalence tables.

Lifetime and Past-Year Use of Illicit Drugs

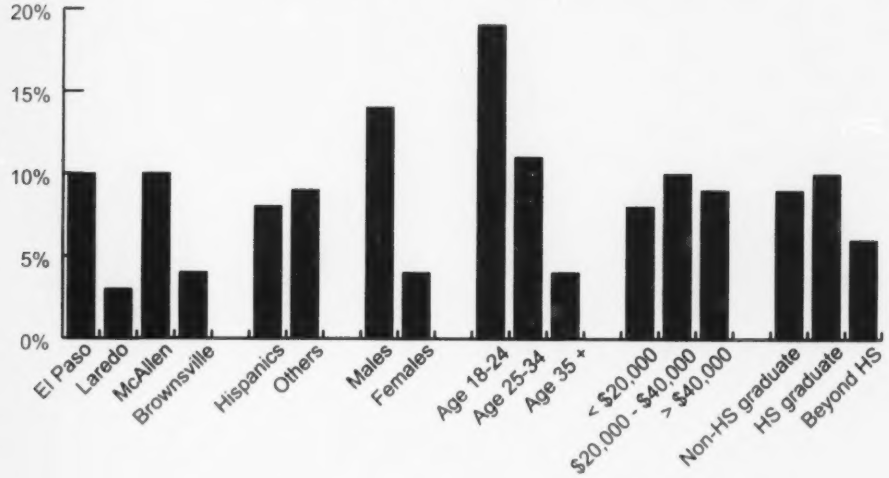
Almost 29 percent of all adults living in the border region had used an illicit drug during their lifetimes, and over 8 percent had used one during the past year. Marijuana accounted for most illicit drug use, with about 27 percent having ever used it and 6 percent having used it in the past year. About 12 percent of adults had used marijuana but no other illicit drug in their lifetimes, and about 4 percent had used marijuana only but no other illicit drug during the past year.

After marijuana, the other drugs most commonly used in the past year were powder cocaine (3 percent) and crack (2 percent), followed by downers, uppers, and psychedelics (about 1 percent each). Past-year use of any other illicit drug was less than 1 percent.

Almost 29 percent of all adults living in the border region had used an illicit drug during their lifetimes, and over 8 percent had used one in the past year.

It is likely that, despite assurances of confidentiality, illicit drug use may be somewhat underreported in general population surveys because of its sensitive nature. For instance, respondents who scored in the highest part of the "social desirability" scale (which measured the tendency to present a desirable social appearance) were almost six times less likely to say they had ever used illicit drugs as respondents who scored in the lowest part of that scale.[4] It is also probable that hard-core drug users are underrepresented in samples of the population of adults living in households, since they may be less likely to live in conventional households or to be available to respond to a survey. For this reason, survey data should be complemented with information from other sources in order to gain a more complete picture of drug use. One such source is the findings of the Border Epidemiology Work Group on Drug Abuse, sponsored by NIDA (BEWG, 1997), which paints another picture of drug use based on treatment data, overdose deaths, and arrests as well as reports from local residents involved in social service programs that minister to substance users. For instance, while in the present survey less than 1 percent of respondents from Laredo reported past-year cocaine use and none reported past-year heroin use, observers state that "the use of cocaine … nasally or by injection is widespread in the lower-class barrios in Laredo" and "there are approximately 3,000 drug users [which would represent about 2.5 percent of adults] who inject heroin in Laredo" (Vasquez and Maxwell, 1997). Therefore, the levels of

Figure 2.2. Past-Year Use of Illicit Drugs, by Socio-Demographic Characteristics of Respondents Living on the Texas-Mexico Border: 1996



drug use found in this survey should probably be considered minimum levels, and would likely be somewhat higher in the population as a whole.[5]

Multiple Drug Use. About one-third of drug users had used more than one drug during the past year, although they did not necessarily use the drugs at the same time. Most multiple drug users had used marijuana as one of their drugs; only about one-quarter of multiple drug users had not used marijuana at all. For users of more than one drug, the most common drug combinations used were marijuana and cocaine, marijuana and uppers, or marijuana and psychedelics.

Injecting Drug Use. Injecting drug use was relatively low; about 1 percent of adults, or 4 percent of drug users, had ever injected a drug in their lifetimes. Heroin and cocaine were the drugs most likely to have been injected. Unlike drug users in general, injectors tended to be older than 35.

Demographic Differences in Current Users of Illicit Drugs

Figure 2.2 illustrates some demographic differences in past-year illicit drug use. Those most likely to have used an illicit drug in the past year were male, young, high school dropouts, and residents of McAllen or El Paso. The average age of past-year drug users was 29 years old, as compared to 42 for the sample as a whole. Crack users (as well as the very small number of heroin users) were about seven years older than other drug users, on average.

There were no significant income differences in drug use. Hispanics and non-Hispanics were equally likely to use illicit drugs. When use of individual drugs was considered, these same demographic patterns were observed, except that uppers and psychedelics were used about equally by women and men. The overall prevalence of heroin and other opiate use was too low to reveal any significant demographic differences in past-year use.

Multivariate logistic regression of demographic factors on past-year illicit drug use confirmed that, when all factors were considered together, those most likely to have used an illicit drug in the past year were

- males,
- younger people, and
- residents of McAllen or El Paso.

Education, income, and ethnicity were not related to the probability of using drugs when these other factors were taken into account. The statistical results of the multivariate analysis are presented in Appendix C, Table C3.

Why People Don't Use Substances

The 15 percent of adults who had never drunk alcohol were asked to give the main reasons for their decision not to drink. The most commonly stated reasons centered on the detrimental effects of alcohol on health, with 40 percent of lifetime abstainers giving health as their first or second most important reason. About 20 percent said they did not want to hurt their family or friends by drinking, and about 19 percent said they disliked the taste or smell of alcohol. Almost 50 percent of respondents who had never drunk alcohol said that they were just "not interested" in drinking or just "did not like to drink."[6]

The most common reason given for not using alcohol and/or drugs was the detrimental effects of those substances on health.

Respondents who had drunk in the past but had not done so within the past month, and who said that they would probably not accept a drink if offered one, were also asked why they would no longer drink at this time. For these former users, health reasons were even more important, with 60 percent giving health reasons for not drinking.

People who had never used an illicit drug and who said that they would not use drugs even if offered some were also asked what motivated their decision. Again, health stood out as the most important reason, with 55 percent giving health as their first or second most important reason. About 26 percent said they would not use drugs for fear of family disapproval, and 32 percent said they were just "not interested" in using drugs.

Among adults who had ever used an illicit drug but said they would not use one now, or who said they would not use particular kinds of drugs even though they might use others, health was still an important reason, with 31 percent giving health-related reasons for not using. Family disapproval and lack of interest were also important reasons. Among these former users, or users of other drugs, fear of getting hooked or addicted was also stated as an important reason for 20 percent.

Reasons for not using substances, especially those given by former users, can give insight into possible ways of motivating heavy alcohol or drug users to change their behaviors. Focusing on the health disadvantages and on problems that affect users' families may be the most effective ways to intervene in problem substance behaviors.

Endnotes

[1] For the purposes of this study, this definition of heavy drinking was chosen because it matches the definition used in both the Texas Adult Survey of Substance Use and the National Household Survey on Drug Abuse.

[2] The El Paso Health Report (Paseo del Norte, 1997) reported that 18.1 percent of El Paso adults answering a 1996 telephone survey had engaged in binge drinking, as compared to 15.3 percent of adults statewide reported by the Texas Department of Health. These figures are similar to those found in TCADA surveys. In the present survey, 21.9 percent of El Paso adults reported binge drinking. The higher number may be due to the differing methodologies of the two surveys. TCADA's survey consisted of face-to-face interviews as compared to the Paseo del Norte survey which was conducted by telephone. In the *1996 Texas Survey of Substance Use Among Adults* which was conducted by telephone, TCADA found a rate of 16.5 percent of binge drinking for adults statewide, a figure similar to that reported by the Texas Department of Health.

[3] Despite this perception, general population studies have, for the most part, not found Hispanics to be more likely than non-Hispanic Whites to be inhalant abusers (Mata, Rodriguez-Andrew and Rouse, 1993; Liu, 1997).

[4] Of course, as noted above, people concerned with social desirability may be actually much less likely to engage in deviant behaviors.

[5] It is possible, of course, that some respondents may have overstated their drug use, although this is more likely to happen among populations which value deviance (e.g. some adolescents or criminal justice populations). Cases in which respondents had obviously exaggerated their answers were flagged by interviewers and deleted from analysis, as explained earlier.

[6] Percentages do not total 100 because they include the first and second reasons stated.

Chapter 3. Alcohol- and Drug-Related Problems

Introduction

Individuals were considered dependent if they reported three or more negative symptoms; they were considered abusers if they reported one or two symptoms.

Respondents who had used inhalants or illicit drugs during the past year or who had drunk alcohol at least once in the past 30 days and 10 or more times during the past year were asked a series of questions about specific kinds of drug- or alcohol-related problems they may have experienced during that time period (see Appendix D). These questions were adapted from the Diagnostic Interview Schedule (Robins, Cottler, and Babor, 1990), an instrument widely used to assess substance abuse and dependence, which is based on symptoms listed in the *Diagnostic and Statistical Manual of Mental Disorders: Third Edition Revised* or DSM-III-R (APA, 1987). They measure such dimensions of impairment as undesired excessive use, development of tolerance and withdrawal symptoms, problems in a person's life and functioning that have resulted from their substance use, and failed attempts to personally control substance use.[1]

Individuals were considered to be *dependent* on drugs or alcohol if they reported three or more of the nine negative symptoms asked about for that substance, or if they said they had ever personally felt that they were dependent upon the substance. They were considered to *abuse* drugs or alcohol if they reported one or two of the nine symptoms.[2] Collectively, substance dependence or abuse will be referred to in this report as substance-related problems or substance misuse.[3]

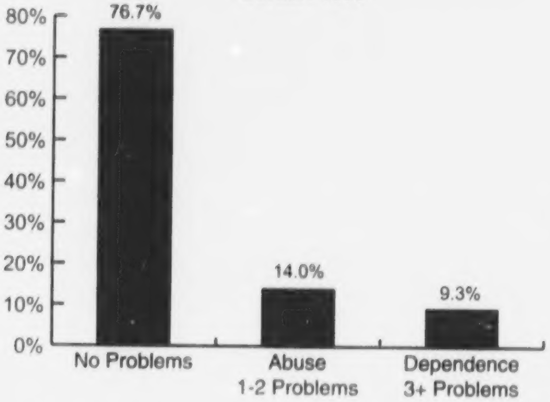
Alcohol Abuse and Dependence

Figure 3.1 shows the percentage of border adults who abused or were dependent on alcohol in the past year. In total, 23.3 percent of adults had some kind of alcohol-related problem: 14.0 percent abused alcohol and another 9.3 percent were dependent on alcohol.

Appendix G presents in detail the prevalence of the individual alcohol problems queried and of alcohol abuse and dependence by demographic category. This information is summarized in Figure 3.2.

There was no significant difference in alcohol abuse or dependence between Hispanics and non-Hispanics. There was, however, some variation in alcohol misuse by gender, site, age, education, and income. Men were over twice as likely as women to abuse alcohol and five times as likely to be dependent on alcohol. Residents of El Paso were the most likely, and those of Laredo and

Figure 3.1. Past-Year Alcohol Problems Reported by Respondents Living on the Texas-Mexico Border: 1996



Brownsville the least likely, to have alcohol problems; this difference was especially large for alcohol dependence.

The relationship between alcohol misuse and age was not linear: the incidence of problems overall was similar for the two youngest age groups but declined noticeably after age 35. When dependence and abuse were looked at separately, adults in the middle age group (25-34) were the most likely to be dependent and those aged 35 and older the least likely. However, there was no significant difference in abuse among the three age groups.

Alcohol misuse was similar across all income categories except the very lowest whose respondents reported the least misuse.

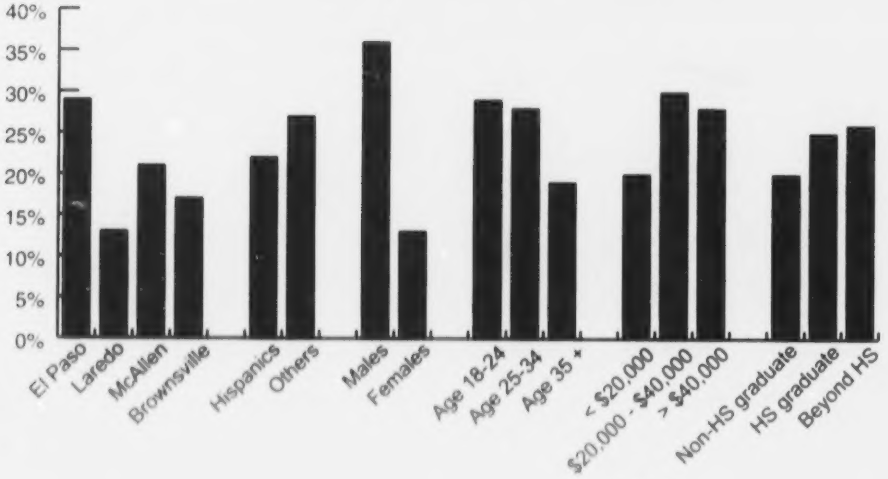
When education was grouped into three categories–non-high school graduate, high school graduate, and beyond high school–there were no significant differences in rates of alcohol misuse. However, when education was looked at in finer groupings, alcohol abuse had a curvilinear relationship, being lowest both for those with the least education (less than ninth grade) and for those with the most education (e.g. graduate school). On the other hand, dependence levels were similar across all educational levels, except for the small groups who had done some graduate work, among whom not a single individual reported dependence.

Finally, alcohol misuse was similar across all income categories except the very lowest (under $10,000), who reported the least misuse.

When all these demographic factors were considered simultaneously in a multivariate logistic regression (see Appendix C, Table C4), the only ones significantly associated with **alcohol misuse** overall (abuse or dependence) were

- being male and
- living in El Paso.

Figure 3.2. Past-Year Alcohol Problems, by Socio-Demographic Characteristics of Respondents Living on the Texas-Mexico Border: 1996



When considering only the more severe **alcohol dependence**, the factors significantly associated were

- being male,
- living in El Paso,
- being younger, and
- having less than a high school education.

Denial of Alcohol Problems

Only 47 percent of those with three or more alcohol-related DSM symptoms in the past year believed they had ever had a drinking problem.

A diagnosis of alcohol abuse or dependence was made from respondents' self report of having experienced one or more of the DSM-III-R list of substance-related problems. However, respondents did not always recognize these reported behaviors as being "problems" for them. When asked in a separate question whether they had ever thought they had a drinking problem, over half of those who would be considered currently dependent on alcohol according to the DSM criteria nevertheless denied having ever had a drinking problem. Only 47 percent of those with three or more alcohol-related DSM symptoms in the past year, and who would thereby qualify for a diagnosis of dependence, believed they had ever had a drinking problem.[4] Among those with only one or two DSM symptoms, who would be considered to abuse alcohol, only 11 percent believed they had ever had a drinking problem.

On the other hand, there was a small group of individuals who personally believed they had had a drinking problem at some time but did not currently report any of the DSM symptoms. About 10 percent of adults who had no current alcohol problems nevertheless said they believed they had a drinking problem at some time. These may be people who had problems in the past but had managed to reduce their level of problems by the time of the survey, either with or without treatment. Since only current drinkers (those who had had at least one drink within the past month) were asked questions about alcohol-related problems, this survey cannot identify the number of individuals who may be currently abstinent because they are in recovery from previous alcohol misuse.

Drug Abuse and Dependence

Figure 3.3 shows the level of drug abuse and dependence among border adults. Overall, 5.1 percent of adults had a drug-related problem: 2.2 percent abused drugs and another 2.9 percent were dependent on drugs.

Among individuals who had had alcohol-related problems, alcohol abuse was more common than dependence. This was not the case for drug problems, where dependence was somewhat more common than abuse. It is also a fact that 61 percent of respondents who had used any illicit drug in the past year reported some kind of problem, in contrast to only 31 percent of alcohol-only users. These facts suggest that any drug use has a high potential to lead to problems, and that these problems are likely to be serious ones.

Some 61 percent of respondents who had used any illicit drug in the past year reported some kind of drug-related problem.

Appendix G shows the percentage of individuals in different demographic groupings who reported each individual drug-related problem, and the percentages who abused or were dependent on drugs. This information is summarized in Figure 3.4.

Figure 3.3. Past-Year Drug Problems Reported by Respondents Living on the Texas-Mexico Border: 1996

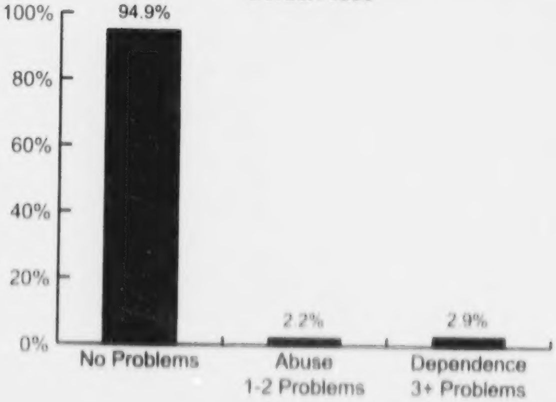
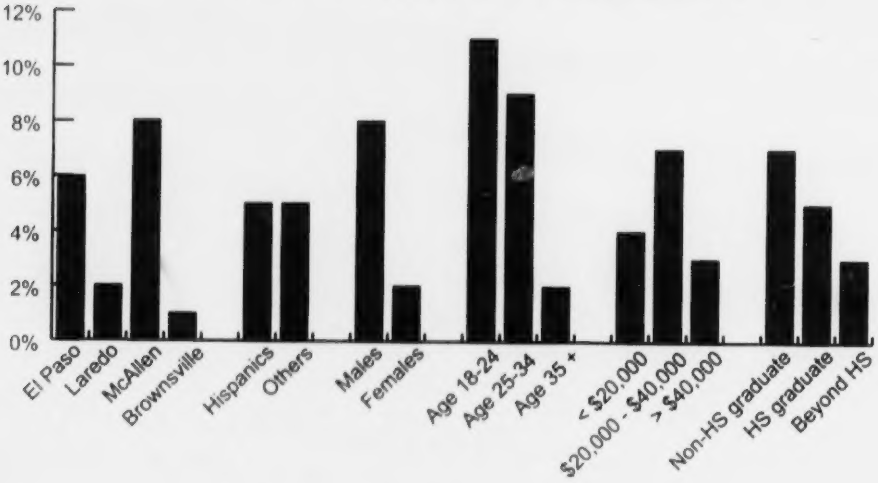


Figure 3.4. Past-Year Drug Problems, by Socio-Demographic Characteristics of Respondents Living on the Texas-Mexico Border: 1996



As was the case for alcohol, men were over three times more likely than women to misuse drugs, and younger adults (those under 35) were more likely than older adults to have problems. Residents of El Paso and of McAllen also were more prone to report drug problems. Drug dependence was especially high in McAllen, where 5.9 percent of adults reported three or more drug-related problems, as compared to 2.9 percent of border adults as a whole. There was also a strong association of drug problems with lower education, with adults who had less than a high school diploma more than twice as likely as those with education beyond high school to report having drug problems. High school dropouts, those with 9 to 11 years of education, were the most likely of all (6.6 percent) to be drug dependent.

High school dropouts, those with 9 to 11 years of education, were the most likely of all (6.6 percent) to be drug dependent.

Multivariate analysis (Appendix C, Table C5) confirmed that **drug misuse** was highest among

- males,
- younger respondents, and
- residents of El Paso or McAllen.

Those most likely to be **dependent on drugs** were

- males,
- younger respondents,
- residents of McAllen, and
- adults with less than a high school diploma.

There was neither a bivariate nor a multivariate difference in drug misuse between Hispanics and non-Hispanics or among respondents at different income levels.

Which Drugs Cause the Most Problems?

Overall, 61 percent of past-year drug users had experienced problems related to their drug use. The drug that appeared most likely to cause problems for its users was cocaine, with 91 percent of past-year cocaine users reporting some drug-related problem and three-quarters of those who had used more than one drug attributing their problems to cocaine primarily.

The drug that appeared most likely to cause problems for users was cocaine, with 91 percent of past-year users reporting some drug-related problem.

Adults who had used uppers or downers were also prone to experiencing drug-related problems, with 70 percent or more of past-year users reporting problems, although most of them attributed their problems to other drugs they had used in addition to those psychotherapeutics (past-year users of uppers or downers had used an average of four different kinds of drugs during that year). Almost 60 percent of crack users reported drug problems, but only about one-quarter of them felt that crack was the drug responsible for their problems. Although the number of past-year users of heroin or other opiates was small, virtually all were drug dependent.

It is sometimes thought that marijuana use may be less problematic than use of "harder" drugs, but some 41 percent of all past-year marijuana users reported problems that they attributed to their marijuana use. Even about 6 percent of adults who had used cocaine or crack in the past year said that most of the problems they experienced were related to their use of marijuana rather than cocaine.

Multiple drug users were far more likely to have had problems than single drug users. Almost 87 percent of those who had used more than one drug in the past year reported at least one drug-related problem, as compared to only 46 percent of those who had only used one drug.

Substance Misuse by Population Subgroup

Figures 3.5 through 3.10 summarize patterns of substance use and misuse for population subgroups, by site, gender, age, ethnicity, education, and income. These profiles do not provide any new information but offer another way of organizing and presenting the findings that have been discussed in Chapters 2 and 3 on the demographic correlates of substance use and substance-related problems. The following outcome measures are summarized in these figures: past-year alcohol use, past-month heavy drinking, past-year illicit drug use, past-year alcohol misuse (abuse or dependence), and past-year drug misuse.

Figure 3.5. Past-Year Use and Misuse of Substances Reported by Respondents Living on the Texas-Mexico Border, by Site: 1996

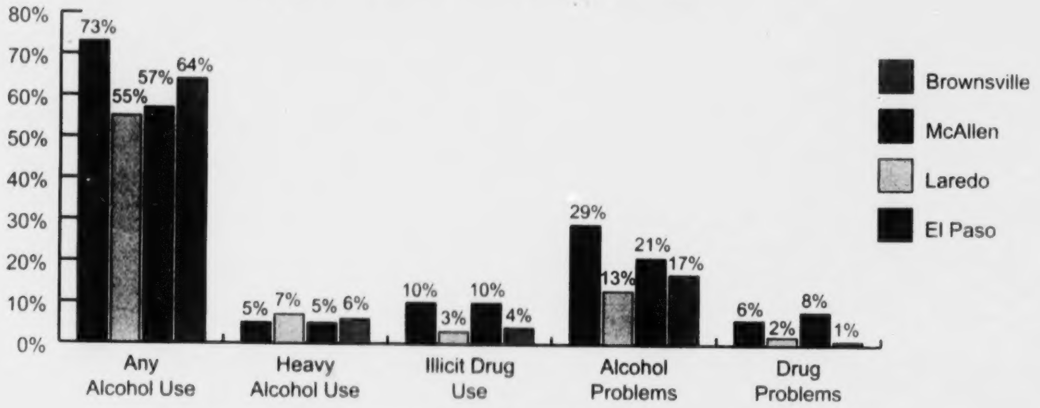
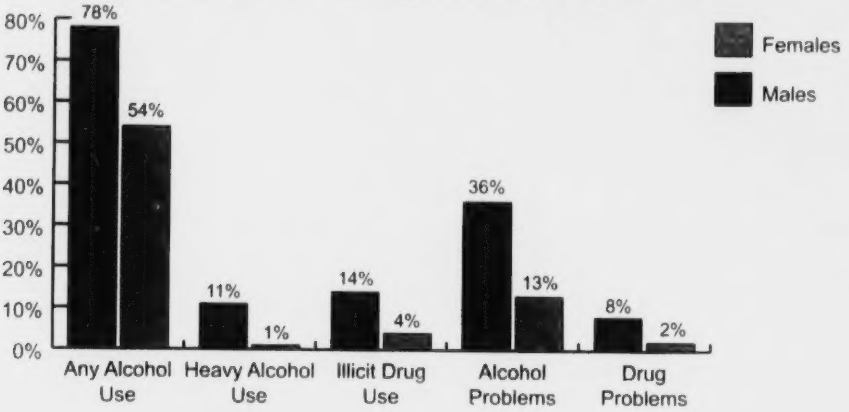


Figure 3.6. Past-Year Use and Misuse of Substances Reported by Respondents Living on the Texas-Mexico Border, by Gender: 1996



By Site

In general, residents of El Paso were the most likely and residents of Laredo the least likely to drink alcohol, use drugs, or report any substance-related problems. However, residents of McAllen, while having relatively low levels of alcohol use, had high levels of illicit drug use and drug misuse.

By Gender

As is commonly found in research on substance abuse in general population samples, males were substantially more likely than females to use alcohol, drink heavily, use illicit drugs, and have alcohol- or drug-related problems. Gender differences in alcohol use and problems were larger among Hispanics than among non-Hispanics; this has been noted in other research as well (Welte and Barnes, 1995). On the other hand, the gap between men and women in rates of heavy drinking and of illicit drug use and misuse was equally large for Hispanics and non-Hispanics. The Office for Substance

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Figure 3.7. Past-Year Use and Misuse of Substances Reported by Respondents Living on the Texas-Mexico Border, by Age: 1996

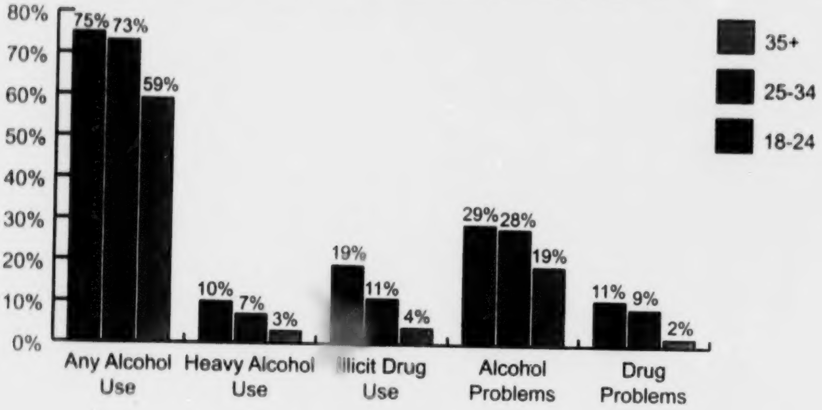


Figure 3.8. Past-Year Use and Misuse of Substances Reported by Respondents Living on the Texas-Mexico Border, by Ethnicity: 1996

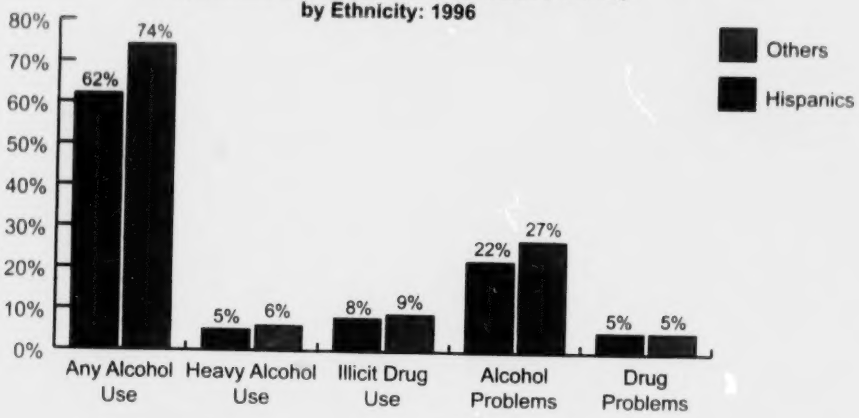


Figure 3.9. Past-Year Use and Misuse of Substances Reported by Respondents Living on the Texas-Mexico Border, by Education: 1996

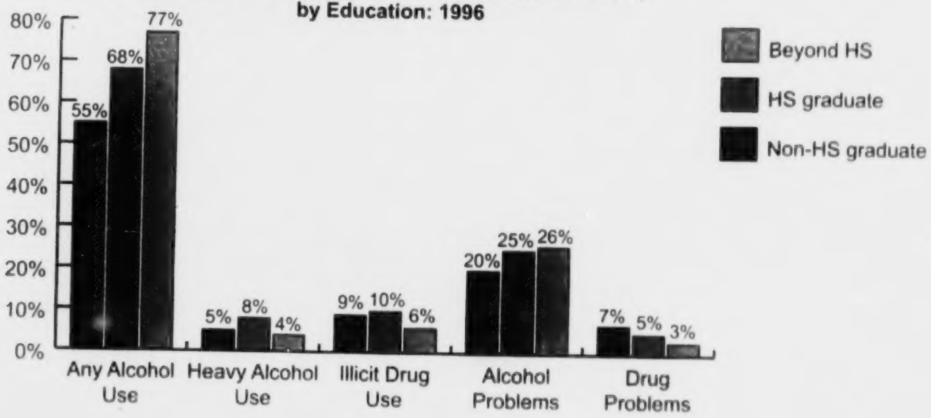
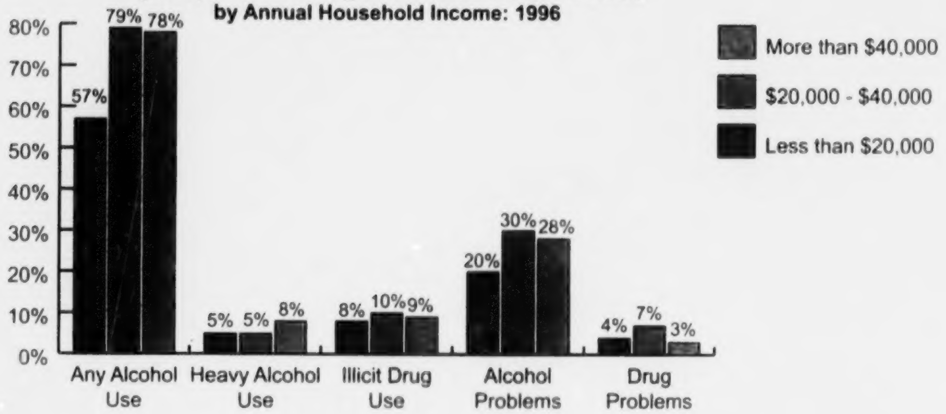


Figure 3.10. Past-Year Use and Misuse of Substances Reported by Respondents Living on the Texas-Mexico Border, by Annual Household Income: 1996



Abuse Prevention (OSAP, 1990) speculates that problems with alcohol and other drugs among Hispanic women may be seriously underreported because of the particularly strong cultural sanctions against women's substance misuse.[5] This finding would suggest that substance use problems among Hispanic women may actually be much more prevalent than what is reported in surveys.

By Age

Again, as is typically found in general population samples, adults aged 35 and older were less likely than those who were younger to use substances or to have substance-related problems. There was little difference in substance use or problems between adults aged 18-25 and those aged 26-34, except for illicit drug use, which was significantly higher among the youngest adults.

By Ethnicity

Past-year alcohol use was significantly higher among non-Hispanics, but this was entirely due to higher use among non-Hispanic women; for men, there was no difference by ethnicity. There were no other significant differences in substance use or misuse by ethnicity.

By Education

Rates of substance use and misuse did not show a consistent pattern by educational level. When detailed educational attainment was looked at (seven categories), individuals who had less than a ninth grade education were the least likely to have drunk any alcohol in the past year, but for those who had any education beyond ninth grade, there was no further difference in past-year alcohol use by educational attainment. Interestingly, the heaviest drinkers were found both among high school dropouts and among high school graduates who had no further education. These two groups were also the ones most likely to have used illicit drugs within the past year.

Regarding substance misuse, there was little difference in alcohol misuse by educational attainment, with the exception that the small group who had done graduate work were less likely than others to report any alcohol misuse. On the other hand, drug misuse was significantly higher for high school dropouts than for any other educational attainment level.

By Household Income

When annual household income was grouped into $10,000 categories, those with incomes of $10,000 or less were least likely to have drunk alcohol in the past year or to have had any alcohol-related problems. There were no significant income differences in heavy drinking or in illicit drug use, and few differences in drug misuse, except that individuals at the highest income levels ($50,000 and above) were the least likely to have drug problems.

Endnotes

[1] In 1994, the APA published a revised set of criteria for diagnosing substance abuse and dependence in its DSM-IV (APA, 1994). To maintain comparability with previous TCADA surveys as well as with many other studies in the substance abuse literature, the DSM-III-R criteria were kept for this study.

[2] For further information about the measurement of dependence and abuse, please see Wallisch, 1994.

[3] While any use of an illicit drug is technically drug misuse, the term as used here refers to a situation in which respondents report problems in their lives that are caused by their drug use.

[4] Respondents were asked whether they believed they had ever had a drinking problem at a point in the interview before they were asked the DSM problem indicator questions. Even though those who had experienced one or more of the DSM problems queried were not told by the interviewer that they were considered to abuse or be dependent on alcohol, it is possible that, had the direct question been asked after the series of DSM problem questions, more respondents would have acknowledged that they had a problem.

[5] "For a Hispanic/Latino family, having an alcoholic son or father is embarrassing. But to have a mother or sister with an alcohol or other drug problem is a burning shame, because of the female ideal of purity, discipline and self-sacrifice in body, mind, and spirit … As a result, Hispanic/Latino women may be reluctant to seek help for alcohol or other drug problems, or even to admit they have such problems to researchers trying to gather anonymous data" (OSAP, 1990).

Chapter 4. Comparisons to Other Populations

Comparison to Other Texas Adults

How do adults living on the border compare with adults living elsewhere in Texas? Are border Hispanics different from Hispanics elsewhere? And are border non-Hispanics different from non-Hispanics in the rest of the state?

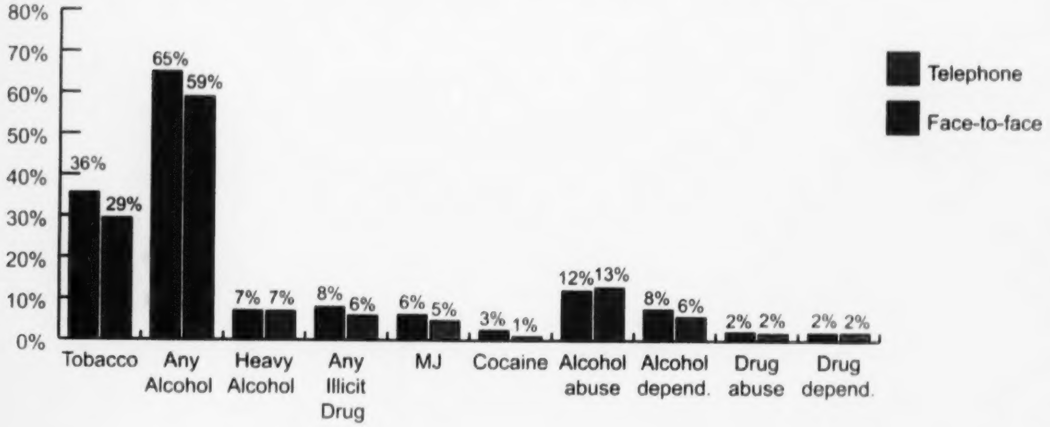
The Border Survey itself cannot be used to make this comparison, since it sampled only individuals living on the border. However, in the same year as the Border Survey was carried out, TCADA also conducted a telephone household survey on substance use among adults throughout the state (Wallisch, 1997).

An analysis found that the face-to-face Border Survey generally revealed slightly higher levels of recent substance use than the statewide telephone survey.

The responses from the Border Survey could not be compared directly with those from the statewide survey, since it is likely that the different modes of interview (face-to-face vs. telephone) had some effect on the amount of substance use and misuse reported. Other research has suggested that responses to sensitive questions given in telephone surveys differ from responses given in face-to-face interviews, according to such factors as the respondent's confidence that responses will be anonymous, the rapport established between interviewer and respondent, and the sensitivity of the questions asked. The direction of bias may not always be the same. For instance, a respondent may feel more comfortable admitting to illicit drug use in an anonymous telephone survey rather than to an interviewer's face. On the other hand, in a climate of good rapport, a skillful interviewer might elicit more sensitive personal information from a respondent during a face-to-face interview. It has been suggested that these issues may be particularly salient for minority group members, for whom deference, conformity, and correct behavior may be important (Ross and Mirowsky, 1984), and especially for Hispanic respondents, who place great value on *simpatía*, or positive interpersonal relationships (Marín and Marín, 1991).[1]

A preliminary analysis of the data, which compared substance use data from the Border Survey with data from the statewide telephone survey (adjusted for age, gender, ethnicity, and geographical location) found that the face-to-face Border Survey generally revealed slightly higher levels of recent tobacco, alcohol, and illicit drug use. For reporting substance-related problems, the picture was mixed. While the in-person survey revealed higher levels of alcohol dependence, it showed lower levels of alcohol abuse than did the telephone

Figure 4.1. Past-Year Use and Misuse of Substances Reported by Respondents Living on the Texas-Mexico Border, by Mode of Interview: 1996



survey. The in-person survey revealed similar levels of drug dependence and abuse as the telephone survey (see Figure 4.1). Some of these differences were gender-specific. There was also some indication that people who live in households that do not have telephones were more likely to use and abuse substances than people who do have telephones in their homes. This finding was true even when controlling for the fact that people without telephones are likely to be poorer. A separate TCADA study will describe reporting differences between survey modes and between telephone and non-telephone households in more detail.

For past-year illicit drug use as a whole, residents of the border reported lower use than residents in other parts of Texas.

Because of the ambiguities involved in comparing data from different survey modes, the present comparison was made using data for border and non-border residents from the statewide telephone survey. The telephone survey interviewed a total of 826 respondents who lived in the four counties covered by the Border Survey, and another 133 who lived in some of the other border counties.[2] These respondents were compared with adults (N=7,072) also interviewed in the telephone survey who lived in non-border areas of the state.[3]

Table E1 in Appendix E compares past-year substance use and misuse between border residents and adults living elsewhere in Texas. Comparisons are done separately for Hispanics and non-Hispanics.[4] Data are summarized in Figures 4.2 and 4.3.

For past-year illicit drug use as a whole, and for each individual drug where use was high enough to discern a difference, residents of the border reported lower use than residents of other parts of Texas. This finding was true for Hispanics and non-Hispanics alike.

Figure 4.2. Past-Year Use and Misuse of Substances Reported by Border and Non-Border Hispanics Living in Texas: Statewide Telephone Survey, 1996

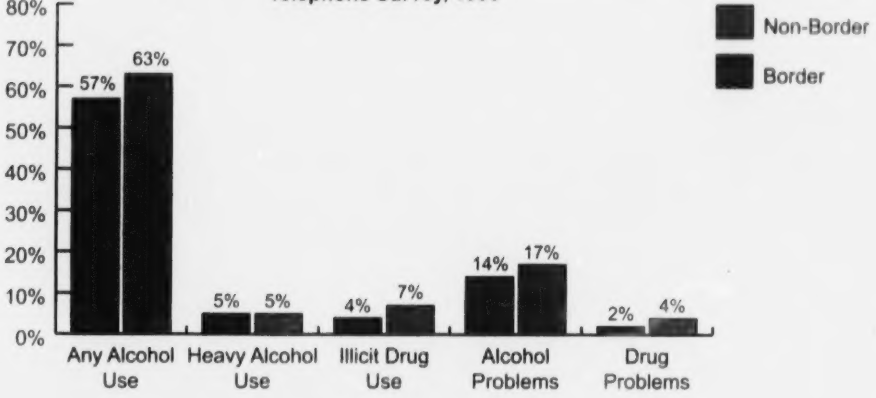
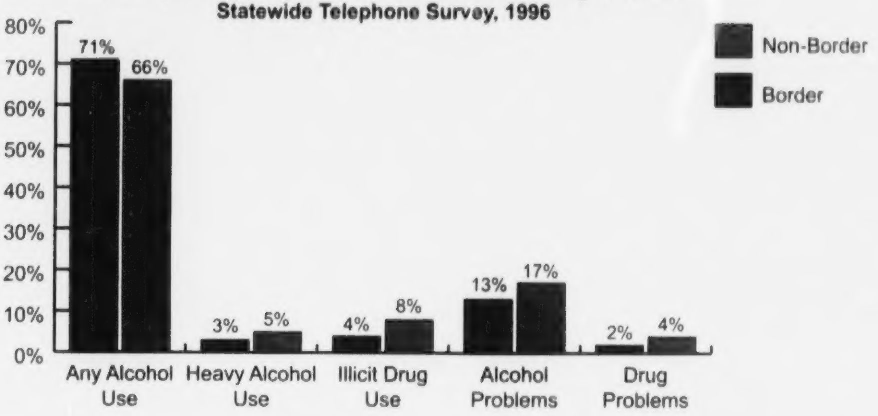


Figure 4.3. Past-Year Use and Misuse of Substances Reported by Non-Hispanic Border and Non-Border Adults Living in Texas: Statewide Telephone Survey, 1996



For alcohol use, results differed by ethnicity. Fewer border Hispanics reported drinking in the past year than non-border Hispanics, although rates of heavy drinking were identical. On the other hand, among non-Hispanics, border residents reported higher rates of past-year drinking than non-border residents, but lower rates of heavy drinking.

Border residents were also less likely to report any alcohol- or drug-related problems than were residents of other parts of the state. This finding was true for both Hispanics and non-Hispanics.

Some of the generally lower rates of substance use and misuse reported by border residents may be attributable to the fact that border adults–both Hispanic and non-Hispanic–were slightly older than adults living elsewhere. There were also some small differences in the proportion of males and females living on the border and elsewhere. When the effect of the age and gender

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distribution was controlled in a logistic regression, some of the differences in substance use disappeared, notably the lower rates of past-year drinking and of alcohol problems for border Hispanics, as well as the differences in heavy drinking and substance misuse for non-Hispanics.

Border Hispanics had lower rates of drug-related problems than non-border Hispanics.

These findings do not mean that the border/non-border differences were not "real," but only that they can be at least partly explained by the differing age and gender structures of the two regions rather than to an effect of living on the border. In other words, if the rest of the state had the same proportion of males to females and young to old as the border region, then substance use patterns would have appeared more similar.

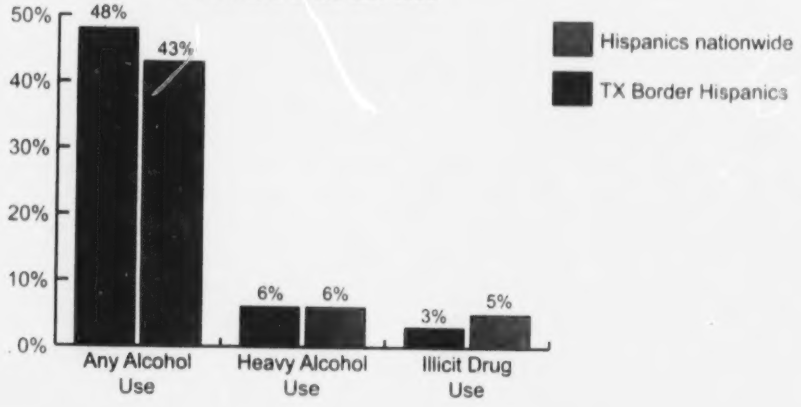
In summary, the significant differences between border and non-border populations that remained, even after accounting for age and gender, were the following:

- Border residents had lower rates of past-year illicit drug use than non-border residents. This finding was true for Hispanics and non-Hispanics alike;
- Border non-Hispanics had higher rates of past-year alcohol use than non-Hispanics elsewhere in the state; and
- Border Hispanics had lower rates of drug-related problems than non-border Hispanics.

Comparison to Hispanics Nationwide

Hispanics interviewed in TCADA's Border Survey were also compared to Hispanics interviewed as part of the National Household Survey on Drug

Figure 4.4. Past-Year Use of Substances Reported by Texas Border Hispanics and Hispanics Living Elsewhere in the US: 1996



Abuse carried out by the Substance Abuse and Mental Health Services Administration (SAMHSA, 1997). Data on past-month alcohol use, heavy alcohol use, and illicit drug use were available for Hispanics nationwide, who were interviewed in person, similarly to TCADA's Border Survey. As shown in Figure 4.4, Hispanics living on the Texas-Mexico border had used alcohol somewhat more often but used illicit drugs slightly less often than Hispanics in the country as a whole. Heavy alcohol use was similar for both border Hispanics and Hispanics nationwide.[5]

Comparison to Mexican Border Cities

In Mexico, the border states are generally more developed than the rest of the country, with a higher standard of living and greater life expectancy. On the other hand, they experience unique problems due to the high transience of the population and the juxtaposition of cultures (Medina-Mora, Villatoro and Rojas, 1996).

Rates of drug use among the Mexican population are, in general, lower than rates observed in the US.

Although Mexico is a drug-producing country as well as a supply route for cocaine and heroin shipped from South America to the United States, rates of drug use among the Mexican population are, in general, lower than those observed in the United States. However, within Mexico, rates of drug use, especially heroin and cocaine, are higher in the northern border areas than elsewhere in the country. There is some variation of use within the border area, with higher rates in the west than in the east. For instance, rates of lifetime illegal drug use in 1993 ranged from 8.9 percent in Ciudad Juarez (sister city of El Paso) to 5.8 percent in Matamoros (sister city of Brownsville) (Medina-Mora, Villatoro and Rojas, 1996). While these rates were much lower than those reported in the Texas survey, the patterns parallel those found in Texas, where use of illicit drugs was about twice as high in El Paso as in Brownsville.

A recent analysis of substance abuse in El Paso and Ciudad Juarez using qualitative data (Elwood and Williams, 1996) concludes that illegal drugs seem to be widely available in both cities. The most prevalent substances are alcohol, cocaine, heroin, marijuana, and inhalants, with crack and methamphetamines less often observed. The authors suggest that the border is fairly permeable and that similar high-risk behaviors take place on both sides. De Salvo (1997) notes that the legal drinking age of 18 in Ciudad Juarez makes it a popular nearby destination for El Paso youth. Ramos (1998) observes that, unlike the more localized drug-using population ten years ago, today intravenous drug users move freely between El Paso and Juarez to buy and use heroin and cocaine. In another study, Yarritu (1997) also reported a state of fluid drug movement across the border, noting that the two bridges that link Matamoros to Brownsville accommodate a flourishing drug and alcohol business. Clearly

Table 4.1. Substance Use Prevalence Rates from the Texas Border Survey Compared to Rates from the Mexican Survey of Drug Use in Border Cities

	El Paso, Texas	Cd. Juarez Mexico	Texas/Mexico Ratio	Brownsville, Texas	Matamoros, Mexico	Texas/Mexico Ratio	Laredo, Texas	Monterrey, Mexico	Texas/Mexico Ratio
Alcohol									
Lifetime	91.8%	71.0%	1.29	79.8%	70.1%	1.14	76.7%	73.2%	1.05
Past-Year	72.6%	54.8%	1.32	64.0%	47.5%	1.35	54.6%	55.9%	0.98
Heavy Drinker	4.6%	7.5%	0.61	5.9%	9.7%	0.61	7.4%	7.3%	1.01
Any illicit drug									
Lifetime	39.3%	8.9%	4.42	18.9%	5.8%	3.26	16.2%	2.8%	5.79
Past-Year	9.9%	na		4.1%	na		3.2%	na	
Marijuana									
Lifetime	37.6%	8.3%	4.53	17.7%	5.5%	3.22	13.8%	2.7%	5.11
Past-Year	5.9%	2.4%	2.46	3.3%	2.2%	1.50	2.9%	0.4%	7.25
Cocaine									
Lifetime	14.0%	1.8%	7.78	7.2%	0.9%	8.00	3.8%	0.4%	9.50
Past-Year	3.2%	1.1%	2.91	1.1%	0.7%	1.57	0.7%	0.0%	
Heroin									
Lifetime	3.8%	0.8%	4.75	0.0%	0.0%		0.6%	0.0%	
Past-Year	0.7%	0.6%	1.17	0.0%	0.0%		0.0%	0.0%	
Inhalants									
Lifetime	9.1%	1.1%	8.27	2.9%	0.8%	3.63	1.4%	0.4%	3.50
Past-Year	0.6%	0.5%	1.20	0.1%	0.2%	0.50	0.6%	0.0%	
Hallucinogens									
Lifetime	16.7%	0.5%	33.40	1.0%	0.2%	5.00	1.1%	0.1%	22.00
Prescription drugs*									
Lifetime	16.6%	4.7%	3.53	2.1%	4.2%	0.50	3.8%	2.3%	1.65

*Without a prescription

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there is a likelihood that drug patterns and problems on one side of the border may spread to the other side of the border, especially in cities in close proximity to one another.

Table 4.1 shows rates of alcohol and drug use (for selected drugs and time frames, depending on the availability of data) for three Mexican cities located close to the border and their Texas counterparts. Data from Mexico come from a 1993 in-person survey carried out by the Mexican government as part of its national longitudinal surveillance system of drug use (Secretaría de Salud, 1994). The survey covered individuals aged 12 to 65.

Rates of alcohol use were much more similar on both sides of the border, with rates of heavy alcohol use being even higher in Mexico than in the US.

Data are presented for Ciudad Juarez, which is adjacent to El Paso, Matamoros, which is adjacent to Brownsville, and Monterrey, which is 150 miles south of the border but may be considered a "stepsister" to Laredo, with considerable movement of its population in and out of lower Texas (Roque, 1997).[6] No data were available for Reynosa, sister city of McAllen.

The side-by-side comparison of Mexican and Texas cities should be interpreted with some latitude, as the methodology, samples, and questions asked differed between the two surveys. However, overall the comparison suggests that for all illicit drugs, rates of lifetime and past-year use were lower on the Mexican side of the border than on the US side. US rates for lifetime use of illicit drugs overall was three to five times higher than Mexican rates and seven to nine times higher for cocaine specifically. Differences were slightly smaller for past-year use, although past-year use of marijuana was seven times higher in Laredo than in its Mexican sister city, Monterrey.

These differences probably reflect two realities: a legitimately lower rate of illicit drug use in Mexico as well as a possibly greater reluctance of those surveyed to disclose such use, due to concerns of social acceptability and legality.

Rates of alcohol use were much more similar on both sides of the border, with rates of heavy alcohol use being even higher in Mexico than in the US.

Endnotes

[1] The "social desirability" score–or the degree to which respondents were attempting to present a "good face"–was higher for both Hispanic and non-Hispanic respondents in the face-to-face survey than in the telephone survey. In both surveys, the score was somewhat higher for Hispanic respondents than for non-Hispanic respondents.

[2] The other border counties included Brewster, Maverick, Presidio, Starr, Terrell, Val Verde, and Zapata Counties.

[3] This statewide survey was not itself considered adequate to study border substance use in detail because of the relatively small number of border residents sampled as well as the fact that it did not ask in-depth questions about issues related to border living. The statewide survey also did not cover individuals living in households

without telephones, which represented about 13 percent of the population of this area.

[4] The non-Hispanic population identified themselves primarily as Anglo (83 percent) in both the border and non-border sites.

[5] In addition to the published tables which reported only past-month use, special cross-tabulations of lifetime and past-year use were available using the on-line National Household Survey Dataset. These showed the same patterns of higher alcohol use and lower illicit drug use among Border Hispanics as compared to Hispanics throughout the country.

[6] Monterrey was used as a comparison city to Laredo because no data were available for Nuevo Laredo, the true sister city..

Chapter 5. Acculturation and Substance Use

Introduction

In preparing this study, it was expected that patterns of substance use and misuse might vary by ethnicity due to the different cultural orientations of Hispanics and non-Hispanics. However, as has been noted in other research as well, the apparent ethnic differences in substance behavior seemed to be essentially explained by differences in education, income, and other demographic factors: once these were held constant, there was no longer a strong difference in substance use or misuse between Hispanics and others.

In Texas, Hispanics are primarily (90 percent) of Mexican origin. However, only about one-third were born outside the US.

Nonetheless, the broad label "Hispanic" obscures the potentially wide variability of cultural and social factors within that ethnic group. In Texas, Hispanics are primarily (90 percent) of Mexican origin. However, only about one-third of Texas Hispanics were born outside of the United States. Individuals who consider themselves Hispanic can therefore range from recent immigrants who speak little English to descendents of original inhabitants of the area who are completely assimilated into mainstream US culture.

Acculturation refers to the process of culture learning and behavioral adaptation that takes place as individuals are exposed to a new culture. Acculturation levels have been shown to affect, among other things, Hispanics' mental health status, levels of social support, level of social deviance, political and social attitudes, and health behaviors (Marín and Marín, 1991). Research has also documented a positive relationship between exposure to US culture, or greater use of English, and substance use among both Mexican nationals and US Hispanics (Farabee, Wallisch and Maxwell, 1995; Black and Markides, 1993; Bales et al. 1994; Welte and Barnes, 1995). Greater substance use may be a byproduct of the stress associated with the acculturation process (*acculturative stress model*) or simply an imitation of the substance use patterns and norms of the host society at large (*acculturation model*) (see Gilbert, 1985).

In the case of Texas Hispanics, acculturation may have a greater effect on the drinking behavior of women than men, since traditional Mexican values accept drinking and even drunkenness by men but discourage it among women (Canino, 1994). Research reported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA, 1994) has found that substance use has increased among successive generations of Hispanics in the United States, and that the generational effect is particularly strong among Mexican-American women.

Numerous scales have been developed to assess acculturation; most are heavily based on language use and preference. In this study to measure relative acculturation, survey respondents who identified their racial/ethnic heritage as "Hispanic/Latino" (including Mexican, Mexican American, Chicano, and Central or South American) were asked further questions about their Spanish and English language ability and use in different situations, their place of birth and that of their parents. The analysis of the effects of acculturation was done only for Hispanic respondents.

Although acculturation can be measured and defined in various ways, for the purposes of this study, acculturation was categorized broadly into three groups: "high" (primary orientation towards United States culture), "moderate" (equal orientation towards United States and Mexican culture), and "low" (primary orientation towards Mexican culture).[1] Respondents whose parents and who themselves were born in the United States, and whose linguistic orientation was primarily towards English, were categorized as "highly acculturated;" those whose parents and who themselves were born in Mexico and whose primary orientation was toward Spanish were categorized as "low acculturated;" and respondents who used both English and Spanish approximately equally and/or those who had one parent born in Mexico were considered to be "moderately acculturated." About 34 percent of the Hispanic sample scored as low acculturated, 50 percent as moderately acculturated, and 16 percent as highly acculturated.

About 34 percent of the Hispanic sample scored as low acculturated, 50 percent as moderately acculturated, and 16 percent as highly acculturated.

Acculturation and Substance Use

Table 5.1 shows several measures of substance use according to respondents' level of acculturation for Hispanics adults. It also shows, for comparison, the same measures for border non-Hispanics, without regard to acculturation level. Acculturation was directly related to substance use behavior. Individuals who were the least acculturated had the lowest rates of alcohol use, heavy alcohol use, illicit drug use, and alcohol or drug problems, while those most acculturated generally had the highest rates. However, differences between the middle and high groups were modest, and only differences between the low and middle acculturation levels were statistically significant. When compared to border non-Hispanics, Hispanics who were moderately or highly acculturated had substance behavior that was statistically indistinguishable from that of non-Hispanics.

The effect of acculturation on substance use was especially pronounced for women. Women who were highly acculturated to US culture were about twice as likely as those with low acculturation to have drunk any alcohol within the past year and ten times more likely to have used an illicit drug. For men,

Table 5.1. Substance Use and Misuse Comparisons of Border Hispanics by Level of Acculturation and Non-Hispanics Living on the Texas-Mexico Border: 1996

		Hispanics		Non-Hispanics
	Low	Medium	High	
Past-Year Alcohol Use	53.3%	65.1%	73.3%	73.8%
Past-Month Heavy Alcohol Use	2.1%	6.1%	7.2%	6.2%
Past-Year Illicit Drug Use	3.1%	10.4%	10.1%	9.4%
Alcohol Problems	15.9%	24.1%	28.1%	27.4%
Drug Problems	2.1%	6.5%	7.6%	4.7%

acculturation had no significant effect on past-year drinking, although there continued to be a difference between low and middle acculturation on heavy alcohol use and on illicit drug use. The strong relationship between acculturation and drinking for women has been shown in other research as well (Canino, 1994; Caetano, 1986/87). United States family values tend to be less restrictive regarding drinking behavior among women, and more egalitarian regarding sex role behavior as compared to Hispanic values (Canino, 1994). Caetano (1986a) has reported survey findings that men and women who were highly acculturated also had more liberal opinions about alcohol use by people in different age and sex groups than did men and women who scored low on acculturation.

Acculturation and Demographic Characteristics

Of course, acculturation can be strongly associated with other demographic characteristics of respondents, such as education and income. For example, only 13 percent of those in the least acculturated category, as compared to 51 percent of those most acculturated, had a family income of $20,000 or more. Similarly, only 27 percent as compared to 72 percent had graduated from high school. Additionally, acculturation was highest among younger individuals and slightly higher among males. Therefore, the question arises as to whether level of acculturation has an independent effect on substance use after the effects of other variables, such as education, income, age, gender, and site of residence have been considered.

To understand the simultaneous effect of these overlapping factors, we refer back to the multivariate logistic regression discussed earlier (Appendice C, Tables C1-C5). After controlling for the effect of age, gender, income, education, ethnicity, site, and propensity to give "socially desirable" responses, the independent effect of acculturation became greatly reduced and was no longer significantly associated with any substance behavior except drug dependence. That is, individuals who were moderately to highly acculturated were more likely than those with low acculturation levels to be dependent on drugs, even after all other demographic factors were considered. But acculturation had no effect on drinking, illicit drug use, or alcohol misuse beyond that accounted for by the other demographic variables.[2]

Endnotes

[1] This categorization does not imply a value judgement, but merely describes the strength of orientation towards United States culture as compared to Mexican culture. It is important to note that acculturation is not the same as assimilation, in which one culture is completely given up for another.

[2] Other studies have found an independent effect of acculturation. For instance, Caetano (1986b) found that both for men and women acculturation was positively related to frequency of drinking independent of income or work status.

Chapter 6. Other Factors Related to Substance Use

Legal Repercussions of Substance Misuse

About 12 percent of border adults said they had been in trouble with the law because of a situation involving their substance use, such as driving while intoxicated, public intoxication, drug possession or sales, or committing an illegal act while drinking or on drugs. Although only 7 percent had ever been apprehended for driving drunk, some 28 percent of border adults admitted to having done so. Residents of El Paso were three times as likely (35 percent) as those from Laredo (11 percent) to say they had ever driven after having too much to drink; residents of Brownsville (22 percent) and McAllen (26 percent) reported intermediate levels. Statewide, about 42 percent of Texas adults admitted to having driven while intoxicated (Wallisch, 1994).

Both border adults and adults statewide reported almost identical rates of arrest and legal involvement related to substances, if they were not substance dependent.

Research conducted nationally has shown that Hispanics are disproportionately represented in arrests for driving under the influence of alcohol and other drugs, and alcohol has been implicated in vehicular, motorcycle, and pedestrian deaths among Hispanic populations at rates somewhat above average for the country (NHTSA, 1995). A major contributor to the problem of drinking and driving among Hispanics is believed to be the lack of understanding about the effects of alcohol on driving ability (NHTSA, 1995).

When border adults in the present survey were compared with adults interviewed statewide in TCADA's 1993 telephone survey of substance use among adults (Wallisch, 1994), an interesting finding emerged. Even though rates were not expected to be strictly comparable due to the different modes of survey (telephone vs. in-person), it turned out that both border adults and adults statewide reported almost identical rates of arrest (for any non-traffic reason) and rates of legal involvement related to substances, if they were not substance-dependent. This finding includes those adults with no substance problems as well as those who abused substances but were not dependent. But for individuals who were dependent on substances, rates of arrest and of legal involvement for substance-related incidents were substantially higher for residents of the border than for non-border residents. This finding suggests that, while border residents are less likely than adults living elsewhere to be dependent on substances, those who are dependent are more likely to be arrested for any reason or get into legal trouble over their substance use than are substance-dependent residents elsewhere in the state.

Mental Health and Substance Use

Relative to the population as a whole, adults who were dependent on drugs or alcohol had significantly higher rates of depression than average.

There is considerable evidence that substance use and abuse are associated with emotional distress, particularly with depressive disorders (Gold and Slaby, 1991). Having either a substance or psychiatric disorder increases a person's risk of having the other diagnosis. In the recent National Comorbidity Survey of the general population (Kessler et al. 1994), the rate of substance problems among individuals who had a mental disorder was twice as high as the rate among those with no mental disorder and, conversely, the rate of mental disorders in those with a substance problem was similarly double the rate of those without substance problems. Comorbidity was also found to be higher among Hispanics than non-Hispanic Whites. A number of other studies (reported in Cuéllar and Roberts, 1997) have found that Mexican Americans, both adults and adolescents, tend to report higher numbers of depressive symptoms than Anglos. These rates were also higher among Hispanics born in the United States as compared to immigrants (Shrout et. al., 1992).

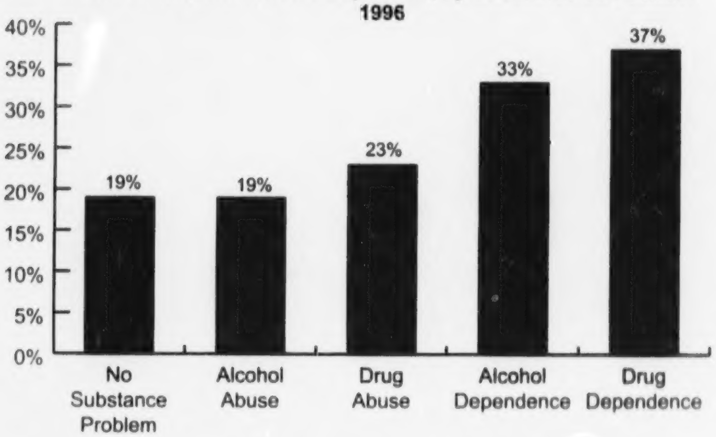
In other studies, Hispanic women were more likely than Anglo or African American women to report severe depression (Louis Harris, 1993). In a study of Mexican Americans, lifetime alcohol use and dependence was related to an increased risk of major depression by a factor of 2 to 7. Secondary depression related to alcohol use was highest among women, those with low income, and those with low acculturation levels (Golding et al., 1993). Other studies have found that Mexican American women are more than twice as likely as men to exhibit high levels of depressive symptoms (Moscicki et al., 1989).

In the present survey, respondents were asked to rate their emotional or mental health as "excellent," "good," "fair," or "poor." They were also asked seven questions measuring current depression, which is one of the most common mental disorders among individuals with substance problems. The questions are a subset of the Center for Epidemiologic Studies Depression (CES-D) scale, and are discussed further in Wallisch (1994). For the purposes of this study, adults who scored in the top 20 percent of the scale were rated as "depressed."[1]

Figure 6.1 shows that, relative to the population as a whole, adults who were dependent on alcohol or drugs (three or more problems) had significantly higher rates of depression than average. Adults who abused alcohol or drugs (one or two problems) had rates of depression that were about average.

As found in other research, women were almost twice as likely as men to report symptoms of depression. There was no difference in depression between Hispanics and others. El Paso residents reported higher rates of depression than those living elsewhere on the border. These differences were true for all border adults, whether or not they also were dependent on substances.

Figure 6.1. Percentage of Respondents Living on the Texas-Mexico Border Who Were Depressed, by Substance Use Status: 1996



Women were almost twice as likely as men to report symptoms of depression. This finding was true whether or not individuals were dependent on substances.

Depression and other mental health disorders can complicate recovery from substance misuse and may precipitate relapse. In a recent study of people hospitalized for alcohol dependence, a concurrent diagnosis of major depression led people to relapse more than three times faster after treatment than those without a diagnosis of depression (Greenfield et al., 1998). The fact that high proportions of chemically dependent adults in the general population reported symptoms of depression even on a simple seven-item screen such as the one used here suggests that depression, and perhaps other mental health problems, would likely be even higher among individuals who enter treatment for substance misuse. Therefore, it is extremely important to screen for and address mental or emotional problems as part of any plan for substance abuse treatment. TCADA is currently collaborating with the Texas Department of Mental Health and Mental Retardation to develop and evaluate treatment services for individuals with substance use issues and comorbid mental illness, also called "dual diagnosis." Five dual diagnosis treatment sites were established in 1996, and an additional nine expansion sites were established in July 1998.

Life in the Community

Drug trafficking across the Texas-Mexico border is extensive,[2] and it is feared that these large quantities of drugs will increase drug availability on the streets and result in high rates of use for border residents. The sale of many prescription medicines over-the-counter in Mexico and their ease of entry into the United States also increases the potential for abuse of controlled substances in border cities. Although most of the illegal drugs that cross the border do not remain there but continue on to destinations elsewhere in the United States, some of the contraband does remain in the border area, sometimes as a form of payment to local residents who assist in trafficking (De Salvo, 1997). Undoubtedly also, an environment of heavy drug trafficking and easy availability of drugs just across the border may contribute to a climate in which drug use is "normalized" (Lucker, 1998). However, the precise relationship between the presence of trafficking in an area and the availability of drugs for personal use there is not known. The present survey queried respondents about how much drug trafficking they perceived in their region as well as about how readily available substances were in their neighborhoods and how much drug and alcohol use they perceived among residents there.

In addition to increasing the presence of illicit drugs in the area, trafficking is also associated with increased violent crime in border areas. The West Texas High Intensity Drug Trafficking Area estimates that one-third of all homicides have a drug connection, and aggravated assaults and kidnapping are frequently drug-related. Some theories suggest that a climate of violence, crime, and neighborhood instability may also contribute to personal drug or alcohol use by residents of those neighborhoods. In the present TCADA survey, respondents were also asked several questions pertaining to the safety of their environments.

Drug Trafficking

Respondents were asked how strongly they agreed or disagreed with the following statements:

- There is a lot of drug trafficking (smuggling or selling) in this area of the state.
- The drug trade has resulted in some positive economic benefits for this area.
- The drug trade in this area is associated with corruption.
- The drug trade in this area is associated with violence and crime.
- Drug dealing can be a good way for people to raise themselves out of poverty.

Table 6.1 shows the perceptions of adults in each site and for the region as a whole regarding drug trafficking and its potential positive or negative effects.

A large majority of residents in all sites perceived that drug trafficking was prevalent, and most thought it was associated with corruption and crime.

A large majority of residents in all sites perceived that drug trafficking was prevalent, and most thought it was associated with corruption and crime. The fact that almost all residents of McAllen and Brownsville perceived trafficking as high reflects the fact that the Rio Grande Valley is increasingly becoming the major entry point in Texas for drugs, eclipsing El Paso (Herrick, 1997). Nevertheless, almost three-quarters of El Pasoans also felt that trafficking was

Table 6.1. Respondents' Opinions Regarding Prevalence and Consequences of Drug Trafficking on the Texas-Mexico Border, by Site: 1996

	El Paso	Laredo	McAllen	Brownsville	Total
A lot of trafficking	**73%**	**85%**	**93%**	**95%**	**84%**
Positive economic benefit	18%	24%	33%	24%	24%
Corruption	**58%**	**78%**	**69%**	**80%**	**67%**
Crime or violence	75%	91%	84%	95%	83%
Way out of poverty	**20%**	**7%**	**14%**	**16%**	**17%**

very prevalent in their area.[3] Some respondents, though many fewer, believed that the drug trade had some benefit for individuals or the community. Interestingly, residents of Laredo were the least likely to endorse drug dealing as a way out of poverty, despite the fact that residents there had the lowest incomes of any of the four sites.

Perceived Neighborhood Safety

It is sometimes thought that individuals' perceptions of their environment, such as the safety of their neighborhood and the amount of substance use they observe there, may be related to their own likelihood of using drugs (Longshore and Grills, 1998). To explore this question, respondents were asked the following questions about the safety of their neighborhood and the amount of substance use they saw on the streets:

- How safe do you feel your neighborhood is (very safe, fairly safe, fairly dangerous, or very dangerous)?
- Do you see graffiti on the fences, homes, or businesses in your neighborhood (a lot, some, only a little, or none)?
- Do you feel that youth gangs are a problem in your neighborhood (major problem, somewhat of a problem, not much of a problem, or not a problem at all)?
- How often do you see people who are drunk or high on drugs in your neighborhood (often, occasionally, rarely, or never)?
- How often do you see people selling drugs in your neighborhood (often, occasionally, rarely, or never)?

A "perceived neighborhood safety" measure was created by recoding the first three questions so that a high score indicated a safer environment, summing the questions, and dichotomizing the resulting index at the median. Respondents with scores above the 50th percentile were classified as living in relatively "safe" neighborhoods, while those below the median were classified as living in relatively "unsafe" neighborhoods. An "observed substance use" measure was created in a similar way by summing and dichotomizing the last two questions.

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Table 6.2. Respondents' Perceptions of Neighborhood Safety and of Drug Presence in the Community on the Texas-Mexico Border, by Site: 1996

	El Paso	Laredo	McAllen	Brownsville	Total
Unsafe and High in drugs	**3%**	**26%**	**13%**	**2%**	**23%**
Safe and High in drugs	5%	13%	7%	11%	7%
Unsafe and Low in drugs	**36%**	**7%**	**24%**	**5%**	**24%**
Safe and Low in drugs	30%	54%	57%	64%	46%

Table 6.3. Percentage of Respondents in Each Neighborhood Type on the Texas-Mexico Border Who Were Heavy Drinkers or Who Used Illicit Drugs: 1996

	Heavy Drinking (past-month)	Illicit Drug Use (past-year)
Unsafe and High in drugs	**7%**	**16%**
Safe and High in drugs	6%	12%
Unsafe and Low in drugs	**4%**	**8%**
Safe and Low in drugs	5%	5%

Table 6.2 shows the distribution of responses to these two composite variables. For the total sample, almost half of all respondents felt that they lived in relatively safe and substance-free neighborhoods, while about one-quarter lived in relatively unsafe neighborhoods high in substance use, and the others lived in "mixed" neighborhoods (high on one factor but low on the other). The table also shows that perceptions varied considerably from site to site, with residents of Brownsville rating their neighborhoods the highest in safety and lowest in drug use, while residents of El Paso rated their neighborhoods as the worst on both factors.

The relative safety of the neighborhood bore little relation to personal drug use, but an environment of street substance use and drug sales was highly correlated with personal use.

To what extent was people's perception of neighborhood quality (safety and observed substance use) related to their own alcohol or drug use? Table 6.3 shows that neighborhood quality was not significantly related to a respondent's own heavy drinking, with residents of all kinds of neighborhoods, safe or unsafe and high or low in street drug use, reporting similar amounts of personal heavy alcohol use.

On the other hand, neighborhood quality was somewhat related to respondents' personal use of illicit drugs. When the two components of neighborhood quality were looked at separately, the relative safety of the neighborhood bore little relation to personal drug use, but an environment of street substance use and drug sales was highly correlated with personal use. Of course, it cannot be ascertained whether the environment actually promoted individual drug use or whether, instead, individuals who use drugs are more likely to move to neighborhoods with high drug presence or are, at least, more likely to perceive more drug use around them.

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Availability of Drugs and Alcohol

Several questions were asked about the perceived availability of drugs in the community:

- If you had the money and wanted to get some marijuana, how easy do you think it would be for you to get it (very easy, somewhat easy, not very easy, or not at all easy)?
- If you had the money and wanted to get drugs like cocaine, crack, heroin, or other drugs, how easy would it be for you to get some (very easy, somewhat easy, not very easy, or not at all easy)?
- If grade school children in your community wanted to get some beer, wine, or liquor, how easy do you think it would be for them to get some (very easy, somewhat easy, not very easy, or not at all easy)?
- Have you seen any evidence of alcohol or drug use among children under the age of 14 in your neighborhood (a lot, some, a little, or none)?
- Have you seen any evidence of alcohol or drug abuse by older adolescents or adults in your neighborhood (a lot, some, a little, or none)?

Over one-third of adults living on the border said it would be relatively easy to obtain marijuana or other drugs.

Table 6.4 shows the percentage of adults in each of the communities surveyed who said it would be "very easy" or "somewhat easy" to acquire marijuana or other drugs if they had the money and wanted to get some, and very or somewhat easy for school children to obtain alcoholic beverages. It also shows the percentage who said they saw "a lot" or "some" evidence of substance *use* among children under age 14 and evidence of substance ***abuse*** by older adolescents or adults in their neighborhood.

Over one-third of adults living on the border said it would be relatively easy to obtain marijuana or other drugs, such as cocaine, crack, or heroin. Almost 40 percent of border respondents also believed it was also relatively easy for school age children to get alcohol, such as beer, wine, or liquor, although only 13 percent said they saw any evidence of substance use among children. Slightly

Table 6.4. Respondents' Perceptions of Drug Availability and of Substance Abuse in Their Neighborhood on the Texas-Mexico Border, by Site: 1996

	El Paso	Laredo	McAllen	Brownsville	Total
Easy to get marijuana	52%	33%	39%	26%	42%
Easy to get other drugs	40%	29%	34%	25%	35%
Easy for kids to get alcohol	44%	51%	38%	23%	39%
Substance use among kids younger than age 14	12%	17%	15%	11%	13%
Substance abuse among teens and adults	28%	24%	16%	17%	22%

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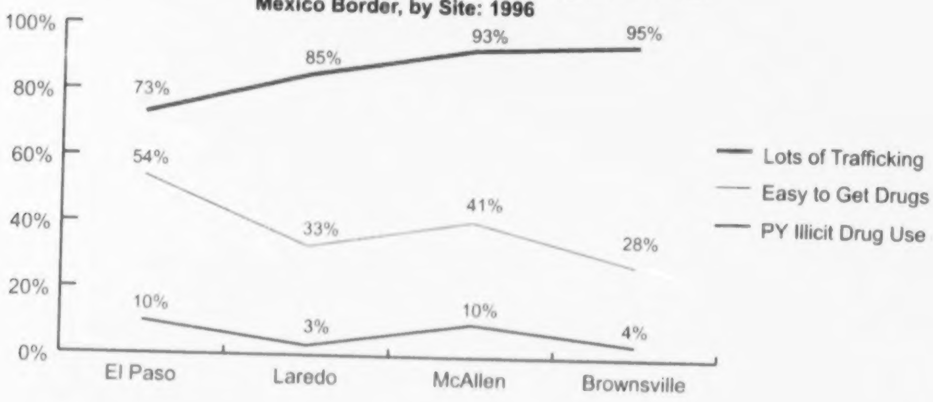
Figure 6.2. Perceived Trafficking, Drug Availability, and Past-Year Personal Use of Drugs Among Respondents Living on the Texas-Mexico Border, by Site: 1996



less than a quarter of all respondents said that they saw much evidence of substance abuse among teens or adults.

There was also some variation in these perceptions by site. Residents of El Paso were generally the most likely to say that drugs and alcohol were easily available, and to perceive substance use on the streets, while residents of Brownsville were the least likely to say this. In Laredo, a relatively high percentage of respondents said they thought it would be easy for grade school children to obtain alcohol if they wanted.

This finding suggests that drug selling is not pervasive where most people live, but that people nevertheless believe that drugs are readily available to them.

It is interesting that about 40 percent of adults said they thought it would be relatively easy for them to obtain marijuana or other drugs, yet when asked how often they saw people selling drugs in their neighborhood, only about 8 percent said this happened occasionally or frequently. This finding suggests that drug selling is not pervasive where most people live, but that people nevertheless believe that drugs are readily available to them.

The relationship between perceived drug trafficking, perceived drug availability, and personal drug use is shown in Figure 6.2. While the level of past-year illicit drug use reported by individuals almost perfectly parallels their reported level of drug availability, there was little association between personal drug use and the perceived amount of drug trafficking (correlation coefficient=.06). Although fewer residents of El Paso than elsewhere perceived drug trafficking as being very prevalent, El Pasoans reported the highest levels of personal drug use, and the opposite was true for Brownsville residents. This finding suggests that, in respondents' eyes at least, drug availability in their area is not directly related to the extent of drug trafficking there.

It is important to note that this study did not directly measure levels of trafficking or drug availability, only respondents' perceptions. It may well be that one's own personal use colors one's perceptions of what's "out there." While environment may have an effect on behavior, in some cases, people choose their environment to reflect their behavior. If greater drug availability makes people more likely to use drugs, it is also true that drug users will perceive drugs to be more readily available than non-users. Without an objective measure of the actual availability of substances, it is not possible to tell which is the case. However, according to several sources (Lucker, 1998; Herrick, 1997; South Texas HIDTA, personal communication), it appears that the extent of drug trafficking in the lower Rio Grande Valley is increasing relative to that in El Paso, and these trends seem to be reflected in this survey's data regarding regional differences in perceptions of trafficking.

Family Dynamics

Recent interest has emerged in examining the role of family dynamics in increasing the risk of drug use or enhancing protection from it among young people. Family warmth and closeness have consistently been shown to be protective factors against substance use, while hostility and anger within the family seems to increase the risk for substance use and abuse (Hawkins, Catalano and Miller, 1992).

The value of familialism has been proposed as one of the most important culture-specific values of Hispanics (Marín and Marín, 1991). Familialism or *familismo* refers to individuals' strong identification with and attachment to their nuclear and extended families, and strong feelings of loyalty, reciprocity, and solidarity among family members. This value appears to help protect individuals against physical and emotional stress by providing natural support systems. Concern with the consequences for family members can also be an important motivation for changing undesirable behavior, such as substance abuse (Marín and Marín, 1991).

In the present study, respondents were asked how well a number of statements about family life described their own family. They were asked whether they strongly agreed, agreed, disagreed, or strongly disagreed (or were undecided) with each of the following statements, which were drawn from measures that have been used in other family research:

- Members of our family support each other.
- Members of our family fight a lot.
- Members of our family sometimes get so angry they throw things.

- Our family does many things together.
- Our family members feel very close to each other.
- Members of our family often criticize each other.
- Our family has certain shared customs or rituals that we enjoy doing together.
- Members of our family sometimes hit each other.
- Each family member has input into family decisions.
- It's okay for family members to have different opinions.
- Our family has special ways of doing things or celebrating holidays that we consider our own family ways.

The behaviors that indicated family hostility appeared to be more strongly related to a respondent's substance use behavior than family behaviors that indicated support.

Factor analysis revealed that these statements represented two underlying factors, one which included family support, closeness, and egalitarianism (which will be referred to as "support") and the other which included anger, criticism, and authoritarianism ("hostility"). These factors were not mutually exclusive: about 15 percent of respondents scored above the median on both the positive and the negative characteristics. For purposes of analyzing the relationship between family dynamics and substance use, families were coded into four categories, termed "supportive" if they scored high (above the median) on support and low (below the median) on hostility (40 percent); "hostile" if they scored high on hostility and low on support (27 percent); "neutral" if they scored low on both support and hostility (17 percent); and "volatile" if they scored high on both support and hostility (15 percent).

The behaviors that indicated family hostility appeared to be more strongly related to a respondent's substance use behavior than family behaviors that indicated support. Table 6.5 shows that, as might be expected, respondents who reported both high hostility and low support in their families were the most likely to have used and misused alcohol or illicit drugs. A high degree of support was able to buffer hostility somewhat, in terms of its effect on alcohol

Table 6.5. Prevalence of Substance Use and Misuse on the Texas-Mexico Border, by Type of Family: 1996

	HOSTILE		NOT HOSTILE	
	Low support *Hostile*	High support *Volatile*	Low support *Neutral*	High support *Supportive*
Past-year alcohol use	73%	62%	6%	63%
Heavy alcohol use	5%	4%	6%	5%
Illicit drug use	14%	9%	5%	5%
Alcohol problem	33%	26%	16%	19%
Drug problem	8%	7%	3%	3%

and drug behavior. But in families that did not exhibit much hostility, support, or lack of support had little additional effect on the probability of using or misusing substances. These findings suggest that, while mutual support is an important and desirable family attribute, issues of anger, criticism, and authoritarianism in the family seem to be more closely related to an individual's substance abuse and should be addressed as part of substance abuse treatment.

Gambling and Problem Gambling

Problem gambling is an often overlooked addictive behavior, and numerous studies have shown it to occur more frequently than average among individuals who also have a problem with substance misuse (Lesieur, 1992). While Hispanic adults in Texas are no more likely to gamble than average, they are more likely than Anglos or African Americans to gamble on certain activities (bingo and animal fights) and they are also more likely than Anglos to experience gambling-related problems (Wallisch, 1996). Problem gambling not only has adverse effects in itself but also can complicate recovery from substance abuse problems. Therefore, it was important to investigate the extent to which problem gambling was an issue among border adults and especially among adults who had substance problems.

In this study, adults were asked whether they had bet within the past year on the Texas Lottery and on various other gambling activities, how often they bet, how much money they typically spent on gambling, and whether they had ever experienced problems related to their gambling.

Texas Lottery

About 69 percent of border adults said they had ever gambled on the Texas Lottery since it began in May 1992, and 60 percent had played the lottery within the past year. The percentage who had played the lottery in the past year is almost identical to the 59 percent reported by residents of the border regions in the 1995 Texas Survey of Adult Gambling Behavior (Wallisch, 1996).

Other Gambling Activities

Many border adults had gambled on other activities as well during the past year. Table 6.6 shows the percentage who had bet on various activities queried. For comparison, it also presents the percentage of adults statewide who said they had gambled on each of those activities in the past year. It should be remembered that the statewide gambling survey was conducted by telephone, and therefore, responses may be somewhat different from those that were obtained in face-to-face interviews, the method used for the present survey.

Table 6.6. Percentage of Texas Adults Who Bet on Each Type of Gambling Activity: Border Adults (1996) and Statewide Adults (1995)

	Border Adults	Statewide Adults**
Texas Lottery	60%	59%
Bingo	10%	10%
Horse/dog racing	2%	10%
Card parlor*	6%	1%
Games of skill	6%	11%
Dog/cock fights*	2%	1%
Sports with bookie*	9%	2%
Any gambling activity	65%	68%
Any other than lottery	26%	47%
Any illegal activity	14%	4%

*These activities are illegal in Texas.

**Data for Statewide Adults come from the 1995 Texas Survey of Adult Gambling Behavior.

Adults living on the border were significantly more likely to have bet on sports through a bookie or played in a card parlor or gambling shack.

Table 6.6 shows that gambling on the lottery and on bingo was identical for border adults and adults statewide. Large differences between border residents and adults statewide were found in gambling on horse and greyhound racing, games of skill, and illicit activities. While adults living on the border were only about half as likely as adults in the state as a whole to have bet on games of skill, such as pool or bowling, and one-fifth as likely to have bet on horse or greyhound racing, they were significantly more likely to have bet on sports through a bookie or played in a card parlor or gambling shack. Reported differences should be regarded with caution, however, due to the different methodologies as well as the different focus of the two surveys.

Amount Spent on Gambling Activities

The median monthly amount that border residents said they spent on gambling activities was only about $10, approximately the same as that reported by adults in the statewide gambling survey. However, those border adults who had gambled on illicit activities (bookie, gambling shack, or dog or cock fights) had spent a median of about $35, or more than three times as much. About 6 percent of all adults who had gambled on *any* activity had spent $200 or more per month. While this is a small percentage of adults, it may represent financially problematic gambling for many of them. Almost one-third of these gamblers reported annual household incomes of less than $10,000, meaning that they were spending one-quarter or more of their monthly income on gambling. Gamblers who bet on the races or on animal fights were the most likely to be "high rollers," while those who bet on the lottery were the least likely to have spent $200 or more per month on gambling.[4]

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Problem Gambling

Respondents who had gambled during the past year on any activity were asked some further questions that indicate possible problem gambling behavior. These questions were drawn from a standard instrument, the South Oaks Gambling Screen (SOGS), which is frequently used in clinical and research settings to screen for problem or compulsive gambling. The questions identify behavior that has been shown to discriminate between people who bet for recreation and those whose betting may be out of control. They do not ask explicitly about amounts of money spent, which may be yet another source of problems for those who cannot afford it. The questions asked in this survey were the following:

- When you participated in these gambling activities during the last 12 months, how often did you go back another day to win back money you lost (never, some of the time, most of the time, or every time)?
- During that year, did you ever spend either more time or more money gambling than you intended (yes or no)?
- Did you ever feel guilty about the way you gambled or about what happened when you gambled (yes or no)?
- Did you ever feel that you would like to stop gambling, but didn't think that you could (yes or no)?
- Did you ever borrow from someone and not pay them back as a result of your gambling (yes or no)?
- In the past 12 months, do you feel that you have had a problem with betting money or gambling, such as feeling guilty over what happens when you bet or wishing you could cut down on your gambling (yes or no)?

Since these questions represent only a subset of the full SOGS scale, it was not possible to make a formal diagnosis of problem or pathological gambling. Using the complete SOGS, respondents who report five or more out of twenty gambling problem behaviors are usually considered to be probable pathological or compulsive gamblers, while those reporting three or four problems are considered to be serious problem gamblers. Using the reduced set of questions to assess problem gambling would most likely result in an underestimate of problem gambling, since many individuals who would score as problem gamblers according to other criteria would not be caught by these six questions alone. Therefore, the percentages reported here may be considered a conservative estimate of the probable extent of problem and pathological gambling among border adults.[5]

Table 6.7. Problem and Non-Problem Gambling in the Past Year Among Adults Living on the Texas-Mexico Border: 1996

Did not gamble in past-year	34.8%
Gambled, no problems	62.4%
Problem gambler	2.3%
Pathological gambler	0.5%

Table 6.7 shows the percentage of border adults who did not gamble at all during the past year, the percentage who gambled but experienced no problems, and the percentages who were problem or pathological gamblers.

> ***About 0.5 percent of all adults in the border region might be considered compulsive gamblers, and another 2.3 percent might be considered serious problem gamblers.***

Based on responses to the six questions about gambling problems, about 0.5 percent of all adults in the border region might be considered past-year pathological or compulsive gamblers, and another 2.3 percent might be considered serious problem gamblers. This is surprisingly similar to the estimate for all Texas adults from the statewide gambling survey, which found, using the complete SOGS, that 0.8 percent were pathological gamblers and another 2.2 percent were problem gamblers. If the percentages found using the reduced set of six questions were adjusted to account for the probable underestimate (see footnote 5), the true prevalence of problem and compulsive gambling might be considerably higher than the state average.

Comorbidity of Gambling and Substance Problems

As has been found in other research, including previous TCADA surveys, individuals who had a substance problem were more likely than others to have a gambling problem and vice versa. While only 2.8 percent of all border adults were problem gamblers, 4.8 percent of those with an alcohol problem and 7.5 percent of those with a drug problem were problem gamblers. Similarly, substance problems were significantly higher among problem gamblers (39 percent) than among those without such problems (24 percent). The high degree of comorbidity between gambling problems and drug or alcohol problems suggests that it is important to screen for and address both of these disorders in prevention and treatment planning.

Endnotes

[1] There is no established cutoff point of this subscale that unequivocally indicates clinical depression. However, individuals scoring above the 20 percent cutoff point show more depressive symptoms than 80 percent of the border population who was interviewed at the same time. The range of possible scores on the depression subscale was from 7 to 28. In the Border Survey, the 20 percent cutoff point corresponded to a score of 15 or greater. For comparison, the 20 percent cutoff point on the same scale when it was used in the *1993 Survey of Substance Use Among Adults* (Wallisch, 1994) was almost identical, at 16, which suggests that the

prevalence of depression was very similar among the border population and the state population as a whole.

[2] It is estimated that traffickers are delivering between five and seven tons of cocaine, marijuana, methamphetamine, and heroin from Mexico to the United States every day of the year (Anderson and Branigin, 1998). A majority of this cargo enters through Texas (Herrick, 1997).

[3] The federal Office of National Drug Control Policy (ONDCP) has designated South and West Texas as High Intensity Drug Trafficking Areas (HIDTA), and created regional partnerships to evaluate the extent of the drug threat and develop a strategy to combat it. In recent reports, the West Texas HIDTA, whose jurisdiction covers the nine westernmost counties of Texas, estimated that in El Paso/Juarez there were four major drug trafficking organizations, 20 supporting organizations, 3 gangs involved in trafficking, and 48 known money laundering operations. The South Texas HIDTA, whose jurisdiction extends from Del Rio to the Gulf of Mexico, reported four major groups of drug trafficking organizations, with 41 supporting organizations, and a 128 percent increase in drug violations between 1995 and 1996.

[4] Gamblers were not asked how much they had spent on each individual activity, only the total amount they had spent on all gambling combined. Individuals who bet on the races or on animal fights had bet on more different kinds of activities, on average, than other gamblers, which may account for their increased spending.

[5] In the 1995 Survey of Adult Gambling Behavior, this subset of six questions would have "caught" only 31 percent of those who were identified as problem or pathological gamblers based on their responses to the full 20-question SOGS. Therefore, it might be reasonable to inflate the estimates of problem gambling obtained by using the six questions by a factor of 3.2 (100 ÷ 31) to get an estimate of the prevalence of problem gambling that would probably have been found using the complete SOGS.

Chapter 7. Treatment History and Current Needs

Introduction

Respondents who had ever used alcohol or another drug (85 percent of all adults) were asked whether they had ever received any treatment to help them stop using substances. They were also asked whether they would be interested in getting some kind of treatment at the time of their interview, if it were reasonably convenient and affordable.

Treatment History

About 4.5 percent of border residents who had ever used alcohol or drugs had already participated in some kind of substance abuse treatment program. Some 70 percent of these individuals had had treatment for a problem with alcohol only, and the others had been treated for a problem involving drugs or both alcohol and drugs. The percentage of border adults who reported any previous treatment is very similar to the state average of 4.8 percent of adults (Wallisch, 1997).

Motivation for Treatment

Among individuals who had a current (past-year) alcohol or drug problem, about 23 percent of abusers (one or two problems) and 41 percent of those who were dependent (three or more problems) said that they would be interested in getting some kind of treatment at the time of their interview, assuming it were affordable and convenient. Respondents who were dependent on drugs other than alcohol appeared especially motivated to seek treatment (67 percent).[1]

Motivation for treatment among border residents with substance problems was encouragingly high, about double that of the state average.

Motivation for treatment among border residents with substance problems was thus encouragingly high, about double that of the state average, which was only 9 percent of abusers and 24 percent of dependent users. The theory has been advanced (Longshore, 1997) that Mexican Americans who are less acculturated to Anglo culture or whose ethnic identity is stronger may consider drug dependence as primarily a spiritual or family problem rather than a health problem requiring professional treatment, and they may therefore be less apt to seek outside treatment. In the present survey, however, quite the opposite was found: among border adults who had a current problem with alcohol or drugs, more than twice as many Hispanics (37 percent) as non-Hispanics (16 percent) showed an interest in treatment at the time of their interview. Interestingly, however, there was almost no difference in the desire for treatment according to differing acculturation levels reported by Hispanic adults.

Among substance misusers, adults who had less than a high school education were twice as likely as those with more education to say they would be interested in treatment.

Motivation for treatment varied also by education, income, and city of residence. Among people who misused substances, adults who had less than a high school education were twice as likely as those with more education to say they would be interested in treatment, and those with the lowest incomes were more likely to want treatment than those with middle or higher incomes. The fact that education and income were inversely correlated with wanting treatment may be partially due to the fact that respondents with lower education and income who had alcohol problems were less likely to deny them than those with more education and income.[2] Residents of Laredo and McAllen who had substance problems were more likely than residents of Brownsville or El Paso to desire treatment. There was no significant gender difference in desire for treatment among those who had a substance problem.

Current Treatment Needs

TCADA's estimates of current treatment needs are based on the percentage of individuals who have substance problems, the percentage of them who are motivated for treatment, and the percentage who are financially in need of publicly-funded treatment ("medically indigent").[3] At present, in the state as a whole, only about 10 percent of the population who is in need of treatment, motivated for treatment, and medically indigent is actually receiving treatment in state-funded facilities (see Wallisch, 1997).

Estimates of current treatment needs for adults in the border area were calculated in the same way, incorporating substance problems, motivation for treatment, and medical indigence. Individuals who reported at least one substance problem were considered to be potentially in need of intervention or treatment services, and those who said they would be interested in getting treatment now were considered motivated. Adults were considered to be medically indigent if they had no medical insurance, they had an annual household income of less than $10,000, or they currently received any kind of public assistance including Medicaid, AFDC, WIC, food stamps, or SSI. Using these criteria, 5.8 percent of adults living in the border region (excluding colonias), or approximately 70,000 individuals, needed treatment, wanted treatment, and were eligible for publicly-funded treatment.[4]

As Table 7.1 shows, treatment need was not evenly distributed among the border sites but was highest in McAllen and lowest in Brownsville. These overall differences reflect the relative importance of different factors in different sites. For instance, while substance problems were high in El Paso, motiva-

Table 7.1. Overall Treatment Need of Adults Living on the Texas-Mexico Border, by Site: 1996

	El Paso	Laredo	McAllen	Brownsville	Total
Treatment need	4.8%	4.9%	9.4%	3.2%	5.8%
Substance problems	30%	14%	22%	18%	24%
Motivated for Treatment	23%	45%	52%	19%	31%
Medically indigent	62%	74%	66%	63%	64%

Note: Substance problems are reported as a percentage of the entire population. Motivation and medical indigence are reported as a percentage of those with substance problems.

tion for treatment was comparatively low. On the other hand, motivation for treatment was quite high in McAllen, with over half of all adults with substance-related problems saying they would be interested in treatment.

Perceived Barriers to Treatment

All respondents, whether or not they reported any kind of problem, were asked how likely it was that they would seek professional treatment (doctor, nurse, psychiatrist, psychologist, hospital, clinic, or treatment program) for a physical, mental health, or substance abuse problem, if they were to have such a problem. They were asked to imagine what they would do if they had a problem in one of these three areas that interfered with their day-to-day activities. We were interested to know whether people would be more reluctant to seek professional help for substance-related problems than for other kinds of problems and, if so, why.

In fact, a large majority of respondents said that they would seek professional help if they had a problem in any of these three areas. Some 89 percent said that they would seek professional help if they had a drinking or drug problem, about the same as the 90 percent who said they would visit a health professional if they had a physical problem. Slightly fewer, about 82 percent, said they would seek professional help if they had an emotional problem. These figures are far higher than the percentage of individuals with current substance problems who said they would be interested in seeking treatment at this time and suggests that people are more motivated "in theory" than in fact. It may also reflect the fact that people who are identified as problem substance users by their responses to symptom questions do not necessarily personally consider that they have a substance problem that interferes with their daily lives.

A large majority of respondents said they would seek professional help for a substance problem, a physical problem, and/or an emotional problem.

There was some difference among the three types of problems in the primary reasons given for not seeking help by those who said they would not do so. Expense was the primary reason given for not seeking help for physical or emotional problems. A feeling that psychological intervention was not effective was also an important reason for not seeking help for emotional problems.

Interestingly, the most important reason for not seeking help for a substance abuse problem, cited by almost half of those who said they would not seek help, was the feeling that they could get well on their own. Other problems, such as expense, not knowing where to go for help, or feeling uncomfortable were perceived as problems only by a few.

Other problems, such as expense, not knowing where to go for help, or feeling uncomfortable were perceived as problems only by a few.

The strong family orientation of Hispanic culture can be a deterrent to seeking treatment from professional sources, as people may be reluctant to take their own problems outside of the family or to suggest that other family members seek treatment. Longshore (1997) presented evidence suggesting that Mexican Americans with substance abuse problems tend to view existing modalities of drug abuse treatment unfavorably and may have lower motivation for treatment than members of other ethnic groups. Another study suggests that the reason Hispanics are reluctant to enter treatment, and the reason they drop out more frequently when they do, is because services are perceived as culturally insensitive and not oriented towards the particular needs of Hispanics (De La Rosa, Khalsa and Rouse, 1990). The fact that Hispanic adult treatment admissions are more likely than average to be court-mandated may reflect these reasons for reluctance to enter treatment. It has been suggested that treatment services for Hispanic populations need to specifically emphasize values such as the importance of family, and concepts such as *respeto* (respect), *dignidad* (dignity), *orgullo* (pride), and fatalism in their approach (De La Rosa, Khalsa and Rouse, 1990). Other suggestions are included in the Prevention and Treatment section of Chapter 9.

Clients Admitted to Publicly-Funded Treatment

Table 7.2 shows information from TCADA's CODAP (Client Oriented Data Acquisition Process) database of individuals admitted to publicly-funded drug or alcohol treatment in fiscal year 1996 for the counties in which the Border Survey was conducted. Clients may have originally been residents of other counties, but received their treatment in the target counties.

These figures show that less than 1 percent of the adult population in each site is currently receiving treatment for substance misuse in publicly-funded facilities. Table 7.1 above indicates that 3 to 9 percent of the adult population was currently in need of and motivated for treatment. Thus, there is still a large unmet need on the border, as elsewhere in Texas.

Table 7.2. Characteristics of Texas Adults Admitted to Publicly-Funded Treatment, by County on the Texas-Mexico Border: 1996

	El Paso	Webb	Hidalgo	Cameron
Number of treatment facilities	8	3	5	5
Number of clients	1,104	86	110	285
% Hispanic	68%	81%	81%	85%
% Alcohol only	25%	6%	19%	44%
% Drugs or alcohol and drugs	75%	84%	81%	56%

The TCADA Border Initiative

TCADA is currently coordinating the Texas component of a bi-national, four-state Texas-Mexico Border Substance Abuse Prevention Initiative, funded by a grant from the federal Center for Substance Abuse Prevention in combination with state monies. The aim of this project is to develop a comprehensive, coordinated, and effective continuum of substance abuse prevention programs and treatment services in the border area. The Initiative focuses on enhancing the region's capacity to provide improved prevention and intervention services by facilitating linkages and knowledge exchange among existing federal, state, and community-level efforts and by providing special funding to programs serving youth and families on both sides of the border. Further details about this Initiative are available from TCADA.

Endnotes

[1] It is interesting to note that about 29 percent of current alcohol or drug users who did not have any problems as assessed by the DSM symptoms nevertheless said they would be interested in receiving treatment at this time. This finding is even higher than the percentage of abusers who said they would be interested in treatment. It is not known why these individuals who apparently did not have a problem would nevertheless wish to receive treatment.

[2] For example, when individuals who reported having alcohol-associated problems on the list of DSM symptoms were asked directly whether they had ever thought that they had a drinking problem, only 17 percent of those with incomes over $40,000, as compared to 30 percent of those with incomes under $20,000, admitted that they did. A similar trend was found for educational level.

[3] In allocating funding for treatment to different regions and subregions of the state, TCADA incorporates these survey-based estimates into a formula that also includes population size, number of single-parent households, drug arrests, rate of unemployment, and the proportion of the population living in rural areas.

[4] The number of individuals is based on extending the 5.8 percent figure to all adults in the 13-county border region, whose total adult population is approximately 1,208,671 (Texas State Data Center projection for 1996).

Chapter 8. Substance Use in Texas Colonias

What is a Colonia?

The majority of identified colonias in Texas are located in El Paso, Hidalgo, Cameron, and Willacy Counties.

Definitions of precisely what constitutes a colonia vary. Typically the term is applied to rural, unincorporated communities, usually located near cities, which are characterized by substandard housing, inadequate water and wastewater services, and lack of paved roads. Colonias exist in Texas, New Mexico, Arizona, and California and on the Mexican side of the border as well. Within the United States, Texas has both the largest number of colonias and the largest colonia population. Despite perceptions that most colonia residents in Texas are undocumented immigrants, a majority of them are actually legal residents or citizens.[1]

The majority of identified colonias in Texas are located in El Paso, Hidalgo, Cameron, and Willacy Counties. In 1995, an estimated 340,000 people lived in over 1,400 colonias in Texas, according to the Texas Water Development Board. Importantly, colonias differ greatly in their size, degree of development, and quality of construction. These differences occur not only between colonias but internally among individual houses as well. Homes may exhibit vastly different levels of development within the very same colonia–from trailers and primitive shacks to small, family homes complete with fences and carports.

Although the standard of living is usually low in colonias, one thing that distinguishes them from squatter settlements, shantytowns, or ghettos is that most of the land and homes are owned or are being purchased under legal contract by the colonia residents. However, the lots are often bought through a contract for deed, a property financing method in which developers typically offer a low down payment and low monthly payments but no title to the property until the final payment is made. This means that homeowners may have less security than individuals outside colonias who have purchased homes under other kinds of mortgages. Houses in colonias are generally constructed piecemeal by their owners and may lack electricity, plumbing, and other basic amenities (FedDallas, 1996).

A limited supply of adequate, affordable housing in cities and rural areas along the border, coupled with the rapid growth of these areas and the rising need for such housing, has contributed to the development of new colonias and the expansion of existing ones (FedDallas, 1996). The city of Laredo (Webb County) was listed recently as the second least affordable place to live in the country, despite higher-than-average unemployment and poverty rates (Garcia, 1996a). About 10 percent of the population of Webb County lives in colonias.[2] Since 1992, the state has identified about 100 new colonias each year (Garcia, 1996b).

Recent legislation has resulted in some state and federal funding dedicated to improving living conditions in colonias, especially by upgrading water and sewer services.[3] However, these needs still surpass the available resources by far (Garcia, 1996c). In August of 1996, the Texas Department of Housing and Community Affairs created an Office of Colonia Initiatives to coordinate its colonia programs, implement colonia legislation, and develop self-help centers to provide housing assistance, such as tools, materials, and low-interest home improvement loans to people living in colonias (Garcia, 1996d). Although poor and largely undereducated, most colonia residents are hardworking and financially responsible. Some families in colonias have taken up to 10 years to build their homes, spending as much as $2,000 a year on materials and doing most of the labor themselves, according to a study by Texas A&M University's Center for Housing and Urban Development. (Garcia, 1996a). However, because of their patchwork construction, many colonia homes do not meet minimum building standards.

In Hidalgo County, 349 residents in 40 colonias were interviewed, while 155 residents were interviewed in 11 colonias in Cameron County.

In recent years, living conditions in colonias have become a topic of great concern, spawning policy research,[4] conferences,[5] and community action projects, such as housing coalitions, community resource centers, mobile health units, and education and literacy efforts.[6] Several lawsuits have also been brought against unscrupulous developers who fail to provide promised utilities and other improvements (AP, 1997). Funds from the federal community services block grant are being dedicated to colonias. However, conditions in most colonias are still among the worst in the country and many more resources are needed to improve the standard of living for colonia residents.

Characteristics of the Colonia Sample

For this survey, a total of 504 residents of 51 different colonias in Hidalgo and Cameron Counties were interviewed. Colonias were randomly sampled from lists of identified colonias, maps, and population counts compiled by the Texas Water Development Board.[7] Appendix H lists the colonias surveyed for this project with brief identifying characteristics as reported by the interviewers. In Hidalgo County, 349 residents in 40 colonias were interviewed, while 155 residents were interviewed in 11 colonias in Cameron County.[8] Post-stratification sampling weights were constructed to make the estimates derived from the survey representative of the age, gender, and ethnic distribution of the two-county colonias population as a whole, based on census block data.[9] Further information on weighting is available in a separate technical report.[10]

Since the focus of interest was on determining if and how colonia residents differ from those who do not live in colonias, the most accurate comparison would be with adults who live in the same general area in which the colonias are located. In this study, since the colonias sampled were located in Hidalgo and Cameron Counties, colonia residents were compared with respondents living in non-colonia areas of McAllen and Brownsville. Because of the sampling procedures, it was not possible to analyze Hidalgo and Cameron County colonias separately, so data from all colonias were combined. For the comparison area, data from Hidalgo and Cameron Counties were also combined, and appropriately weighted.[11]

Overall, as compared to the adults in non-colonia areas of McAllen and Brownsville, colonia residents had significantly lower incomes and educational levels.

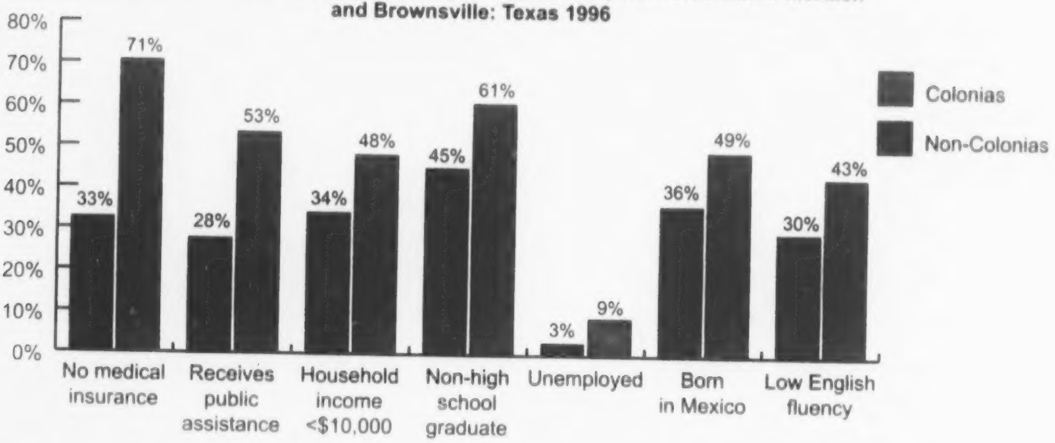
Table 8.1 shows the demographic composition of the combined Hidalgo and Cameron colonias, as compared to the combined non-colonia sample in McAllen and Brownsville.

Overall, as compared to adults in non-colonia areas of McAllen and Brownsville, colonia residents had significantly lower incomes and educational

Table 8.1. Demographic Description of Colonias and Neighboring Metropolitan Areas of McAllen and Brownsville: Texas 1996

	Non-Colonias	Colonias
Sample Size	703	504
Gender		
Male	47.3%	52.6%
Female	52.7%	47.4%
Age		
Age 18-24	16.9%	21.4%
Age 25-34	23.5%	25.2%
Age 35+	59.6%	53.4%
Mean Age	40.6	36.8
Ethnicity		
Hispanic	81.0%	89.8%
Non-Hispanic	19.0%	10.2%
Education		
Non-High School Graduate	45.0%	60.7%
High School Graduate	22.3%	22.9%
Beyond High School	32.6%	16.4%
Annual Household Income		
Less than $20,000	58.8%	83.1%
$20,000-$40,000	24.2%	14.6%
More than $40,000	17.0%	2.3%

Figure 8.1. Selected Low Socio-Demographic and Low Acculturation Characteristics of Respondents Living in Colonias and Non-Colonias in McAllen and Brownsville: Texas 1996



levels. The slight differences in gender, age, and ethnic distribution were not significant.

An analysis of census data carried out by the University of Texas LBJ School of Public Affairs (LBJ, 1996), which compared the block groups in 21 border counties containing colonias with the block groups in those counties that did not contain colonias, found that almost 43 percent of colonia residents had incomes below the poverty level in 1989, as compared to 33 percent of non-colonia border residents. However, only 17 percent of both colonia and non-colonia residents received any public assistance. In the present Border Survey, 48 percent of colonia residents as compared to 34 percent of non-colonia residents had an annual household income of $10,000 or less. However, unlike the census findings, slightly over half of colonia residents (53 percent) said they received some kind of public assistance, such as AFDC, WIC, Medicaid, or food stamps, as compared to 28 percent of the non-colonia population of Hidalgo and Cameron Counties.

Unlike the census findings, slightly over half of colonia residents said they received some type of public assistance.

Figure 8.1 shows some other indicators of low socio-economic status and low acculturation for colonia and non-colonia residents. Colonia residents were more than twice as likely to lack medical insurance and to receive public assistance, and three times more likely to be currently unemployed. They were also significantly more likely to have not graduated from high school and to have an annual household income of less than $10,000. As compared to non-colonia residents, they were more likely to have been born in Mexico and less likely to be fluent in English.

Living Conditions in the Colonias

Most of the colonias that were sampled in the Border Survey had electricity, running water, and sewage.[12] However, even when water lines and sewer systems are in place, some residents cannot access the services because their homes do not meet county building codes and residents cannot afford the repairs or improvements necessary to bring them up to code (FedDallas, 1996).

Some 81 percent of the colonia residents sampled said they owned their own home and 80 percent of all colonia residents lived in houses which had a separate bathroom and kitchen. Interestingly, renters were somewhat more likely to have a separate bathroom and kitchen than homeowners, perhaps because some of the latter were in the process of improving their living quarters bit by bit. About 70 percent of colonia residents said they had a septic tank for sewage disposal, and 21 percent were connected to a municipal sewer; the others had an outhouse or cesspool.[13] Over 88 percent of the colonia residents sampled, whether or not they owned their own homes, said they owned a car, a TV, and a refrigerator. Over 80 percent also owned a washing machine. About 75 percent had a telephone in their household. Virtually all of the homes were connected to drinking water and electricity.[14]

Some 81 percent of colonia residents sampled said they owned their own home, and 80 percent said they lived in a house which had a separate bathroom and kitchen.

However, flooding is a common problem in colonias because of floodplain locations, unpaved roads, and uneven grading, and it can lead to conditions of insanitation and disease, especially in situations where sewage disposal is inadequate. Septic systems frequently overflow when it rains. Texas Department of Health data show that hepatitis A, salmonellosis, dysentery, cholera, and other diseases occur at much higher rates in colonias than in Texas as a whole (FedDallas, 1996). About 13 percent of respondents noted that there were serious flooding problems in their colonias.

Substance Use in Colonias

Little is known about substance use in colonias. On the one hand, the poverty conditions, social stresses, and relative lack of law enforcement and other social services might be expected to create a situation conducive to high substance use or abuse. In addition to a shortage of primary care providers, the difficulty of colonia residents in accessing health care is compounded by factors such as having to travel long distances to health care facilities, fear of losing wages for time spent away from work, inconvenient health care facility hours, lack of awareness of available health care programs, and no health insurance (FedDallas, 1996).[15] It has also been said that in colonias there is little or no sense of community, and formal and informal community organization structures are weak or non-existent, especially in the more recently developed colonias (Ward, 1995).[16] On the other hand, the financial difficulty of

Table 8.2. Lifetime and Past-Year Prevalence of Substance Use and Misuse, for Colonias and Non-Colonias in Hidalgo and Cameron Counties: Texas 1996

	EVER USED		USED PAST-YEAR	
	Non Colonias	Colonias	Non Colonias	Colonias
Tobacco	63.7%	64.8%	**31.0%**	**36.4%**
Alcohol	79.7%	76.0%	**59.0%**	**58.6%**
Past-Month Heavy Alcohol	-	-	5.3%	8.3%
Inhalants	4.1%	6.0%	**0.2%**	**0.6%**
Any Illicit Drug	20.8%	25.0%	**8.9%**	**5.8%**
Marijuana	20.3%	23.2%	7.9%	4.0%
Cocaine	8.2%	8.5%	3.1%	1.6%
Crack	2.5%	0.7%	0.9%	0.4%
Uppers	3.5%	5.6%	0.6%	1.6%
Downers	3.7%	4.0%	1.6%	1.1%
Heroin	0.7%	0.3%	0.0%	0.1%
Other Opiates	0.1%	0.6%	0.0%	0.0%
Psychedelics	2.6%	2.9%	0.5%	0.4%
Alcohol Problems	-	-	**20.2%**	**11.8%**
Alcohol dependence	-	-	8.0%	4.7%
Alcohol abuse	-	-	12.2%	7.1%
Drug Problems	-	-	**6.0%**	**2.9%**
Drug dependence	-	-	4.6%	2.1%
Drug abuse	-	-	1.4%	0.8%

obtaining drugs, coupled with the strong traditional family values of recent immigrants from Mexico, might be thought to provide a counter influence against substance use. It is therefore important for health and social planning purposes to determine if and how residents of colonias differ in their substance use behavior from residents of non-colonias areas.

Table 8.2 shows rates of lifetime and past-year use of tobacco, alcohol and other drugs for colonia residents and, for comparison, for non-colonia residents of McAllen and Brownsville. The table shows that lifetime and past-year substance use was fairly similar between residents of colonias and non-colonias. None of the rates of lifetime or past-year alcohol or drug use differed significantly between colonias and non-colonias.

Table 8.2 shows that the most notable difference between colonia and non-colonia residents was in reported alcohol and drug problems. Colonia residents were only about half as likely as non-colonia residents to report symptoms of alcohol or drug abuse or dependence. About 12 percent of colonia residents reported any alcohol problems in the past year, as compared to 20 percent of non-colonia residents. About 3 percent of colonia residents reported drug-related problems, as compared to 6 percent outside colonias, although this latter difference was not statistically significant.[17]

Colonia residents were only about half as likely as non-colonia residents to report alcohol or drug problems.

Demographic Factors Associated with Substance Use

A multivariate analysis was conducted to examine the simultaneous effects of age, gender, income, and education on substance use and substance-related problems among adults living in colonias. The results were similar to those found in the non-colonia sample (see Chapter 2). When all factors were considered together, the factors most strongly related to heavy drinking and to having alcohol problems were

- being male and
- not having a high school diploma.

Factors most strongly related to illicit drug use and drug-related problems were

- being male,
- being younger, and
- having a low income level.

Acculturation and Substance Use

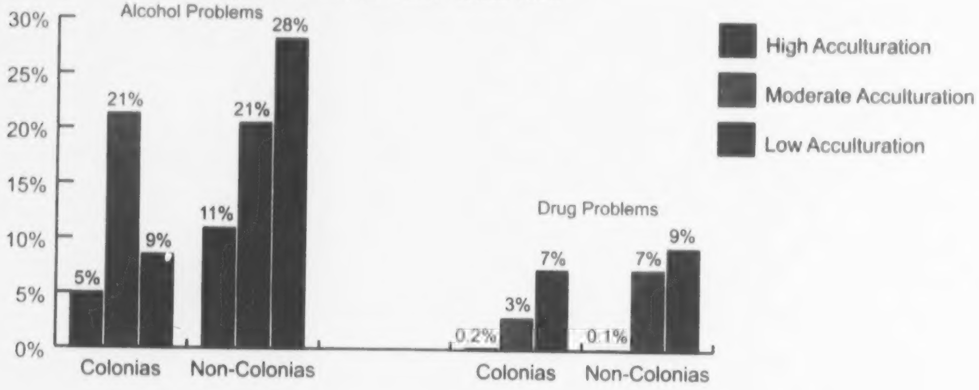
In colonias, those who were most acculturated to US culture were relatively unlikely to report having alcohol problems.

The measure of acculturation used in this study was previously described in Chapter 5. The reader is reminded that low levels of acculturation signify a primary orientation toward Mexican culture, while high levels of acculturation signify a primary orientation towards United States culture. On the whole, the level of acculturation was somewhat lower in the colonias as compared to the non-colonia areas of McAllen and Brownsville. On the three-level measure of acculturation, more colonia residents were in the low acculturation group (40 percent) than were non-colonia residents (25 percent). However, approximately the same percentage in both groups was in the highest acculturation group (23 percent in colonias as compared to 27 percent not living in colonias).

Interestingly, the association between acculturation and substance use was somewhat different in colonias as compared to the non-colonia areas of McAllen and Brownsville. Outside the colonias, the most highly acculturated adults were the most likely to drink heavily and to have alcohol-related problems. In colonias, on the other hand, those most likely to be heavy drinkers and to have alcohol problems were individuals in the moderate acculturation group, while those who were most acculturated were relatively unlikely to report having alcohol problems (see Figure 8.2).

For illicit drug use and drug-related problems, the relationship with acculturation was again different between colonia and non-colonia residents although the pattern of association was different from that between acculturation and alcohol problems. Outside the colonias, the risk of illicit drug use and drug

Figure 8.2. Past-Year Alcohol and Drug Problems of Hispanics Living in Colonias and Non-Colonias in McAllen and Brownsville, by Acculturation Level: Texas 1996



problems rose sharply between the low and moderate acculturation groups, but did not rise appreciably with further acculturation. On the other hand, within the colonias, there was a steady increase in drug use and drug problems with each successive acculturation level (see Figure 8.2).

In the colonias, acculturation had an effect on substance use even beyond that accounted for by other demographic factors.

These findings suggest that the "meaning" and correlates of acculturation may be different within and outside of colonias. Since highly acculturated individuals are less likely to live in colonias, it may be that those do live there, whether through choice or economic necessity, may have different behaviors from acculturated individuals who live elsewhere. In the non-colonia sample, the association of acculturation levels with substance use was greatly reduced once factors such as age, gender, income, and education were taken into account. In the colonias, on the other hand, acculturation had an effect on substance use even beyond that accounted for by other demographic factors. These intriguing findings should be further investigated using more in-depth measures of acculturation than were possible in this study.

Legal Repercussions of Substance Misuse

Colonia residents were generally similar to non-colonia residents in their experience of legal repercussions of substance use, including trouble related to driving while intoxicated, drug possession, or acts committed while using alcohol or drugs. About one-quarter of colonia and non-colonia residents alike admitted to having sometimes driven while intoxicated, although only about 6 percent of both groups said they had been in trouble with the law because of their actions. About 12 percent of colonia residents, the same percentage as all border adults, had been in trouble with the law for any situation involving their substance use, such as driving while intoxicated, public intoxication, drug possession or sales, or committing an illegal act while drinking or on drugs.

Mental Health and Substance Use

In general, the pattern of higher-than-average rates of depression among individuals who had substance problems that was found in the non-colonia sample (as well as in other research studies) was noted also in the colonias. Over 50 percent of adults with drug problems and 31 percent with alcohol problems scored as depressed, compared to only 17 percent of those who had no substance-related problems.[18]

Life in the Community

Residents of colonias were about equally likely as non-colonia residents of McAllen and Brownsville to say that drug trafficking was prevalent in their area of the state (87 percent), and that the drug trade is associated with corruption (76 percent) and with violence or crime (87 percent). They were also about equally likely to speculate that trafficking might have some economic benefit for the community (36 percent) or represent a good way for people to raise themselves out of poverty (15 percent).

However, colonia residents were significantly more likely than residents of Brownsville and McAllen to feel that their neighborhood was unsafe, and that they noticed a lot of graffiti and gang activity. They were almost three times more likely to report seeing people drunk or high on drugs in their neighborhood, and slightly more likely to say that they saw people selling drugs. Figure 8.3 shows the "neighborhood quality" measure, which combines respondents' perceptions of safety and of substance presence, for colonias and for non-

Figure 8.3. Respondents' Perceptions of Neighborhood Safety and Drug Use Among Adults Living in Colonias and Non-Colonias in McAllen and Brownsville: Texas 1996

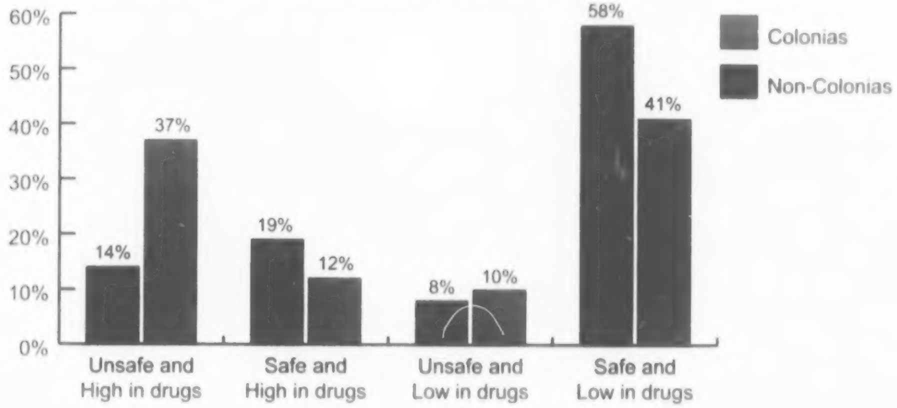


Table 8.3. Percentage of Colonia Residents in Each Neighborhood Type Who Were Heavy Drinkers or Who Used Illicit Drugs: 1996

	Heavy Drinking (past month)	Illicit Drug Use (past year)
Unsafe and High in drugs	11%	5%
Safe and High in drugs	15%	13%
Unsafe and Low in drugs	5%	5%
Safe and Low in drugs	5%	5%

colonia areas of McAllen and Brownsville. Colonia residents were more than twice as likely as non-colonia residents to say they lived in neighborhoods that were both unsafe and high in drug use or drug selling.

There is some evidence from other research that individuals' personal substance behavior is related to their perception of their neighborhood environment. Table 8.3 shows the percentage of colonia adults in each type of neighborhood who drank heavily or who used illicit drugs.

The relationship between neighborhood quality and personal substance use was somewhat different in colonias than among border adults generally. In the non-colonia sample as a whole, there was little relationship between type of neighborhood and whether or not a respondent drank heavily, whereas in the colonias, residents of neighborhoods that were high in observed substance use or abuse were more likely to be heavy drinkers themselves. This finding was true both in safe and unsafe neighborhoods; neighborhood safety in itself appeared to be unrelated to personal drinking habits.

In colonias, residents of neighborhoods that were high in substance use or abuse were more likely to be heavy drinkers themselves.

The relationship between neighborhood quality and past-year illicit drug use was an unusual one. Outside of the colonias, respondents who lived in neighborhoods of high observed substance use were about twice as likely as those who lived in areas low in substance use to be drug users themselves. However, in the colonias, only residents of neighborhoods that were high in levels of drug use *but relatively safe* were more likely to be drug users themselves, while residents of high drug use neighborhoods that were unsafe were no more likely than average to use drugs. This is a curious finding, although one that should be regarded with some caution, as the difference, albeit apparently large, was not statistically significant once tests were adjusted for the complex sampling scheme of the survey.

Availability of Drugs and Alcohol

As shown in Table 8.4, colonia residents were slightly less likely than residents of Brownsville and McAllen to say it was easy to obtain marijuana or other illicit drugs in their neighborhoods, or that it was easy for children to get

Colonia residents were almost twice as likely to say that they saw evidence of alcohol or drug abuse by older adolescents or adults in their neighborhoods.

alcohol there. They were equally likely to report that they saw evidence of alcohol or drug use among children under the age of 14 in their neighborhood. However, they were almost twice as likely to say that they saw evidence of alcohol or drug *abuse* by older adolescents or adults there.

The increased perception of adult substance abuse in the community among colonia residents as compared to non-colonia residents is interesting, in light of the fact that colonia respondents reported lower levels of personal drug and alcohol abuse than non-colonia respondents. It is possible that substance abuse is more evident in colonias because those communities are more circumscribed and isolated than urban neighborhoods, or because there is more outdoor activity in colonias, where such behavior would be more observable.

Family Dynamics

The section on Family Dynamics in Chapter 6 describes the questions and coding used to classify respondents' family life on the dimensions of hostility and support. Factors which indicated a supportive family life included family support, closeness, and egalitarianism, whereas anger, criticism, and authoritarianism were characteristics of a hostile family life. On the whole, colonia residents reported a higher degree of family hostility and a lower degree of family support than residents of non-colonia areas of McAllen and

Table 8.4. Respondents' Perceptions of Drug Availability and of Substance Abuse in Their Neighborhood on the Texas-Mexico Border, by Colonias and Non-Colonias: 1996

	Non-Colonias	Colonias
Easy to get marijuana	36%	31%
Easy to get other drugs	32%	26%
Easy for kids to get alcohol	34%	26%
Substance use among kids younger than age 14	14%	15%
Substance abuse among teens and adults	16%	30%

Table 8.5. Prevalence of Substance Use and Misuse on the Texas-Mexico Border in Colonias, by Type of Family: 1996

	HOSTILE		NOT HOSTILE	
	Low support *Hostile*	High support *Volatile*	Low support *Neutral*	High support *Supportive*
Past-year alcohol use	71%	51%	47%	52%
Heavy alcohol use	12%	3%	9%	8%
Illicit drug use	11%	3%	3%	2%
Alcohol problem	18%	6%	11%	9%
Drug problem	6%	2%	1%	1%

Brownsville. However, the relationship between family dynamics and substance use behaviors showed many similarities to that observed in the non-colonia sites. Table 8.5 shows the percentage of colonia adults in each type of family who used alcohol, drank heavily, and used illicit drugs, and the percentage who had alcohol or drug problems.

As in the non-colonia sites (see Table 6.5), substance use and misuse was highest among those respondents classified in the category of high hostility and low support. In families that exhibited high levels of hostility, though, the addition of high levels of support was able to buffer the effects of hostility, so that levels of substance use and abuse were much lower. Again, as reported for the non-colonia sites, the perception of family support or lack of it had no particular effect on substance use or misuse in families in which hostility was relatively low.

Gambling and Problem Gambling

Little is known about the gambling behavior of people living in colonias, although their very low income levels would suggest that any gambling expenditures might represent a disproportionate financial burden. Table 8.6 shows the percentage of adults who had bet during the past year on various activities for colonia and non-colonia residents of McAllen and Brownsville.

Colonia and non-colonia residents were indistinguishable when it came to betting on the lottery, with 54 percent of each group having done so during the past year (slightly less than the percentage who had done so statewide). But colonia residents were much less likely than others to have bet on gambling activities other than the lottery. Only 9 percent of colonia residents, as compared to 26 percent of non-colonia residents, had gambled on any non-lottery activity during the past year. Colonia residents were relatively even less likely than non-colonia residents to have bet on any of the three illegal activities queried including betting on sports through a bookie, dog or cock fights, or games in a card parlor.

Colonia residents were much less likely than others to have bet on gambling activities other than the lottery.

During the past year, colonia residents had spent a median of about $10 per month on gambling activities, as compared to a median of about $19 for non-colonia residents in McAllen and Brownsville. Since the median income of colonia residents was about half of that of non-colonia residents, their gambling expenditures represented approximately the same proportion of their income as those of non-colonia residents.

Not unexpectedly, since they gambled less on most activities, colonia residents also were less likely than others to have experienced problems related to their gambling. While 3.4 percent of adults in McAllen and Brownsville reported

Table 8.6. Percentage of Respondents Who Bet on Each Type of Gambling Activity in Colonias and Non-Colonias: 1996

	Non-Colonias	Colonias
Texas Lottery	54%	54%
Bingo	8%	5%
Horse/dog racing	3%	1%
Card parlor*	10%	1%
Games of skill	7%	1%
Dog/cock fights*	3%	1%
Sports with bookie*	8%	2%
Any gambling activity	60%	57%
Any other than lottery	26%	9%
Any illegal activity	16%	4%

*These activities are illegal in Texas.

Among adults who had bet on non-lottery activities, 8 percent of colonia residents as compared to 2 percent of non-colonia residents reported problems.

some gambling-related problems, only 1 percent of colonias adults reported such problems. However, when considering only individuals who had gambled on activities other than the lottery–especially illegal activities–colonia residents were substantially more likely to report having had gambling problems than were non-colonia residents. Among adults who had bet on non-lottery activities, 8 percent of colonia residents as compared to 2 percent of non-colonia residents reported problems. Among those who had bet on illegal activities, 14 percent of colonia residents as compared to 4 percent of non-colonia residents reported problems.[19]

There was no apparent association between problem gambling and problem substance use. This fact may be due to the small numbers of respondents who had gambling problems, which made statistical differences relatively difficult to detect.

Treatment History and Current Needs

Treatment History

About 3 percent of colonia residents who had ever used alcohol or drugs had participated in a substance abuse treatment program at some time during their lives. Interestingly, while the majority of adults in the other border communities surveyed (as well as in the state as a whole) who had ever entered treatment had done so for an alcohol problem alone, in the colonias, the opposite was true: three-quarters of adults who had sought treatment had done so for a problem involving drugs.

Motivation for Treatment

Among individuals who had a current (past-year) alcohol or drug problem, about 4 percent of abusers and 26 percent of those who were dependent said that they would be interested in getting some kind of treatment at the present

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Respondents who were dependent on drugs other than alcohol appeared especially motivated to seek treatment.

time, assuming it were affordable and convenient. Respondents who were dependent on drugs other than alcohol appeared especially motivated to seek treatment (64 percent).

Except for people who were dependent on drugs, the percentage of adults with substance-related problems who were motivated for treatment was substantially lower in colonias than outside. While the percentages who were interested in treatment were similarly high (over 60 percent) for drug-dependent individuals both in and out of the colonias, among people who were dependent on alcohol, fewer than 10 percent of those in colonias, as compared to over 40 percent of those outside, expressed interest in treatment. Among people who were alcohol or drug abusers, those in colonias were similarly less likely than those outside to want treatment.

This reluctance to seek treatment may have several explanations. Even among people identified as substance dependent by their answers to the diagnostic questions, not all were willing to admit that they had a problem. However, colonia residents did not seem more reluctant to admit that they might have a problem than other border residents,[20] so denial is unlikely to be the reason for lower treatment motivation in colonias. Other factors that could help explain the unwillingness to seek treatment include lack of familiarity with such programs, possibly because they are less available in colonias, anticipated problems with transportation, child care or family needs, or even greater cultural barriers against seeking treatment outside of the family.

Current Treatment Needs

Table 8.7 shows the estimated treatment needs in colonias, based on the percentage of adults who have substance problems, the percentage who would be motivated for treatment at this time, and the percentage who are medically indigent and would need publicly-funded treatment. Adults were considered medically indigent if they had no medical insurance, they had an annual household income less than $10,000, or they currently received any kind of

Table 8.7. Overall Treatment Need of Adults Living on the Texas-Mexico Border in Colonias: 1996

Treatment need	**1%**
Substance problems	13%
Motivated for treatment	14%
Medically indigent	83%

Note: Treatment need and substance problems are reported as a percentage of the entire adult colonia population. Motivation and medical indigence are reported as a percentage of those with substance problems.

public assistance including Medicaid, AFDC, WIC, food stamps, or SSI. More discussion about how these figures are calculated is given in Chapter 7.

These figures show that currently about 1 percent of colonia adults, or an estimated 2,300 people if this percentage is extended to the estimated adult population of all colonias in Texas, needed and wanted treatment and would be eligible for publicly-funded substance abuse treatment services because of medical indigence. This percentage is somewhat less than that found in the non-colonia border sites, where it ranged from about 3 percent in Brownsville to over 9 percent in McAllen. Although colonia residents were substantially more financially needy than other border residents, the percentage reporting substance problems was lower, and the percentage of these who were motivated for services at the time of their interview was lower as well, bringing the total treatment need down to 1 percent of adults.

About 1 percent of colonia adults or an estimated 2,300 people needed, wanted, and were eligible for publicly-funded substance abuse treatment services.

Adults cannot be forced into treatment, unless they are so mandated by the courts. However, motivation for treatment can be stimulated by outreach and education programs that focus on improving the situations of individuals whose substance problems are interfering with their lives. Currently few resources exist in colonias for drug and alcohol education, prevention, or treatment. A greater availability of such services within the community could help encourage people to acknowledge their problems and seek help for them.

Further insight into motivation can be found in the reasons individuals give for abstaining from alcohol or drugs. While health-related reasons were predominant among colonia residents, as they were among those not living in colonias, it is of interest that colonia residents were much more likely than non-colonia residents to cite moral or religious reasons for not drinking or using drugs. Intervention strategies that emphasize reasons that are most salient to colonia residents may help in motivating people to reduce their problem behavior.

Barriers to Treatment

As described in Chapter 7, all respondents, whether or not they reported substance or other problems, were asked how likely they were to seek professional help if they were to have a physical, emotional, or substance-related problem that interfered with their daily activities. They were asked to imagine being in such a situation, whether or not they actually had problems at the time of their interview.

Although it had been expected that colonia residents might perceive greater cultural or logistic barriers to getting treatment, in fact they were just as likely as non-colonia residents to say that they would seek professional treatment for

About 50 percent of colonia adults would not seek help for a substance or mental problem because of the cost of treatment.

a physical, emotional, or substance abuse problem if they had one. About 88 percent of colonia residents said they would seek treatment with a doctor, nurse, hospital, or clinic if they had a physical problem, 87 percent would seek treatment for an emotional or psychological problem, and 92 percent would seek treatment for a problem with alcohol or drugs. These percentages were about the same as those found among non-colonia residents.

Yet there were some differences between colonia and non-colonia residents in the reasons cited for not seeking help by those who said they would not do so. In the colonias, expense was the main reason given for not seeking help for problems. About 78 percent of those who would not seek help for a physical problem cited expense as the reason (this was twice as many as among non-colonia residents), and about 50 percent of those who would not seek help for a psychological problem or a substance abuse problem also cited expense as the main barrier.

One reason for not seeking help for substance problems is the belief that one can get better on one's own. This belief was far more prevalent outside the colonias, where 46 percent of those who would not seek treatment for substance problems cited this reason, than in the colonias, where only 9 percent gave this reason. This finding suggests that colonia residents did endorse the value of professional treatment for substance problems.

However, a large percentage (31 percent) of colonia residents who said they would not seek help for a substance problem said they would be scared, did not want other people to know, or would feel uncomfortable talking about these problems with anyone. This finding is in contrast to only 6 percent of non-colonia residents who cited this as the reason they would not seek treatment.

While it is encouraging that the overwhelming majority of respondents said they were likely to seek professional help for their problems, the barriers reported by those who would not should be noted, so that they can be reduced or eliminated. Discomfort with seeking professional help can be reduced through education and "legitimization" of such services. It is likely that even those who said they would probably seek help might nevertheless feel some discomfort or anticipate financial hardship, and raising awareness of these issues would probably hav wide positive repercussions.

How Reliable Are Responses from Colonia Residents?

In light of the limitations of the survey method of gathering information about sensitive behaviors, it is possible that any apparent differences between colonia and non-colonia residents may reflect different reporting patterns rather than true differences in behavior. For instance, colonia residents, because of their lower education, may be more apt to misunderstand or misinterpret questions. Due to cultural factors such as lower acculturation or greater traditionalism, colonia residents may be more reluctant to disclose drug and alcohol misuse. Additionally, some respondents may withhold information about illicit or problem behavior out of fear that this information could affect their immigration status.

Every attempt was made to minimize these concerns by establishing good rapport with respondents and assuring them of the confidentiality of their responses. Additionally, data were excluded from analysis if interviewers indicated that they believed the responses were generally untruthful or that the respondents did not well understand the questions. In actual fact, the proportion of cases excluded for these reasons was no higher in colonias that elsewhere. In addition, colonia residents scored even lower than non-colonia residents on the "social desirability" measure, indicating that they were *less* likely to be concerned about "putting on a good face."

> *Colonia residents scored lower than non-colonia residents on the "social desirability" measure, indicating they were less likely to be concerned about "putting on a good face."*

While these limitations should be kept in mind in interpreting the findings, survey research still remains one of the best ways of gathering information about behaviors such as substance use.

Endnotes

[1] An analysis of 1990 census data shows that 85 percent of all residents of block groups that contained colonias were US citizens. This percentage is the same as in non-colonia areas of the border region (LBJ, 1996).

[2] Similarly, about 10 percent of the populations of Hidalgo and El Paso Counties were also living in colonias, while about 5 percent of the population of Cameron County lived in colonias (Texas Water Development Board).

[3] Four colonia-related laws were passed during the Texas 74th Legislative Session, HB 1001, HB 2726, SB 336, and SB 1509. Also, the Texas Department of Housing and Community Affairs received permission to use federal money for housing initiatives and in 1996 awarded $1.5 million in grants to three South Texas counties to connect hundreds of colonia residents to sewer and water services (Garcia, 1996d).

[4] For instance, see *Colonia Housing & Infrastructure: Current Population and Housing Characteristics, Future Growth, and Housing, Water and Wastewater Needs* (Lyndon B. Johnson School of Public Affairs, Preliminary Report, January 1996); and *Third World Colonias: Lower Rio Grande Valley, Texas* (Robert K. Holz and Christopher Shane Davies, Lyndon B. Johnson School of Public Affairs, Working Paper Series, 1993).

[5] Housing Production and Infrastructure in the Colonias of Texas and Mexico. A Bi-National Conference sponsored by the Mexican Center of the Institute of Latin American Studies at the University of Texas at Austin, May 5-6, 1995.

[6] See, for instance, *Cinco Colonia Areas: Baseline Conditions in the Lower Rio Grande Valley* (George O. Rogers et al., Center for Housing and Urban Development, Texas A&M University, 1993); and *Las Colonias del Alto Rio Bravo: Baseline Conditions in Webb and El Paso Counties* (George O. Rogers et al., Center for Housing and Urban Development, Texas A&M University, 1994) .

[7] A number of the colonias sampled from the lists turned out to be mobile parks that hosted "Winter Texans." These were dropped and replacements found.

[8] The Texas Water Development Board has estimated that in 1996 there were about 868 colonias or "economically distressed areas" in Hidalgo County, comprising 28,758 dwellings, and 111 colonias in Cameron County, with 8,385 dwellings. The number of colonias sampled in each county in the TCADA survey was thus proportional to the number of colonia dwellings estimated by the TWDB (i.e. 77 percent in Hidalgo County and 23 percent in Cameron County).

[9] Although the 1990 census had a significant undercount, research has shown that the census provided the most complete enumeration of colonia housing units out of five separately conducted counts (Chapa and Pinal, 1993). On the other hand, colonia boundaries generally do not coincide with the boundaries of census geographic areas. Typically, block groups may have a greater area than the colonia or colonias contained with them (LBJ, 1996). Therefore, the demographic characteristics of the colonias are approximated, based on those of the surrounding block groups.

[10] James Dyer, et al. *Methodology Report for the 1996 Survey of Adult Drug and Alcohol Use Along the Texas Mexico Border,* (College Station, TX: Public Policy Research Institute, Texas A&M University, June 1998).

[11] Since three-quarters of the colonias sampled were in Hidalgo County (as were three-quarters of all colonias in the two-county area), the comparison group of McAllen and Brownsville residents was weighted to give three-quarters of the weight to the McAllen sample.

[12] Anti-colonia laws strengthened by the 1995 Texas Legislature now require developers to provide water and sewer services to residential subdivisions before obtaining plat approval from the county, or to post a bond or make other financial guarantees to ensure the utility work is done. Plats are still sometimes offered for sale in violation of this law.

[13] The 1990 US Census showed that approximately 60 percent of all colonias in the state had a septic tank or cesspool, while 35 percent were connected to public sewage systems (LBJ, 1996).

[14] There were some differences in housing between residents of Hidalgo County colonias and those of Cameron County colonias. While home ownership rates were similar between the two counties, residents of colonias in Cameron County were less likely to have a separate kitchen or bathroom, were less likely to have city sewage, and were more likely to report a problem with flooding in their colonia. On the other hand, they were more likely to own a car, TV, and washing machine.

[15] The border counties in general are severely medically underserved. For instance, the number of physicians per 100,000 population was about 101 in the border counties as compared to 181 for the state as a whole. This number was as low as 85 physicians per 100,000 population in Hidalgo County.

[16] However, the president of the Cameron Park colonia residents' association in Cameron County, speaking at a conference, noted that 90 percent of the residents were related to each other, as a result of which there was a strong sense of unity and open channels of communication in the community. (Gloria Moreno, comments at Housing Production & Infrastructure in the Colonias of Texas and Mexico: Proceedings of a Bi-National Conference. Austin, May 5-6, 1995.)

[17] Some of the lower rate of drug problems reported in colonias could be attributed to the lower usage of drugs there. Therefore, problem rates were further looked at among only those adults who had used drugs in the past year. This comparison

showed that colonia residents who used drugs were about equally likely as non-colonia residents who used drugs to report drug *abuse* (13 percent vs 17 percent). However, colonia residents were still less likely to be *dependent* on drugs (36 percent vs 52 percent), although this difference was not statistically significant.

[18] It should be noted that these differences were not statistically significant once the tests were adjusted for the complex sampling scheme. However, they are reported in the belief that their magnitude represents a robust difference that would be significant using a larger and less variable sample.

[19] However, relatively few colonia residents had bet on non-lottery activities in the past year (n=71) or on illegal activities (n=38), so these dramatic differences should be regarded as suggestive only, as they are based on small samples.

[20] As one interview question, respondents were asked directly whether they had ever thought they had a drinking problem. Among individuals who would be diagnosed as alcohol dependent according to the DSM criteria, only about half had ever personally thought they had a problem. This finding was true for colonia and non-colonia residents alike.

Chapter 9. Conclusion

Summary of Findings

This survey of substance use carried out among a representative sample of adult residents of the Texas-Mexico border (n=2,169) was designed to answer a number of questions. Keeping in mind the limitations inherent in all survey-based research, the answers to these questions based on findings from this study are summarized below.

- *What is the lifetime and current prevalence of tobacco, alcohol, and other drug use among adult residents of the border region?*

Over two-thirds (69 percent) of border adults had ever used tobacco, and 35 percent had done so during the past year. About 85 percent of border adults had drunk alcohol in their lifetimes, and 65 percent had drunk alcohol in the past year. Approximately 5 percent of adults were heavy drinkers, and 23 percent had engaged in binge drinking (five drinks on one or more occasions during the past month).

Almost 29 percent of border adults had ever used an illicit drug, and over 8 percent had used one in the past year.

Almost 29 percent of adults had ever used an illicit drug, and over 8 percent had used one during the past year. The most prevalent drug by far was marijuana (6 percent in the past year), followed by cocaine (almost 3 percent in the past year). See Chapter 2.

- *What is the extent of alcohol- and drug-related problems, including abuse (one or two problems) and dependence (three or more problems), among this population?*

About 14 percent of adults abused alcohol and another 9 percent were dependent on alcohol. About 2 percent of adults abused drugs other than alcohol, and almost 3 percent more were dependent on drugs. See Chapter 3.

- *Are there differences in prevalence and problems among the four sites surveyed? Between younger and older respondents? Between Hispanics and non-Hispanics? Between men and women? Among respondents with different educational attainments and different income levels?*

In general, residents of El Paso were the most likely and residents of Laredo the least likely to use and misuse substances. Residents of McAllen also had high levels of illicit drug use and misuse. Males were substantially more likely than females to use and abuse substances, and adults younger than 35 were generally more likely than those who were older to use or misuse substances. There were few significant differences in substance use or misuse between Hispanics and non-Hispanics, except that Hispanic women were less likely than others to drink alcohol. Some measures of substance use and misuse were related to education and income. High school dropouts were disproportionally likely to be heavy drinkers as well as to use and abuse illegal drugs. Low-income individuals were the least likely to have alcohol-related problems, while high-income individuals were the least likely to have drug problems. See Chapters 2 and 3.

About 12 percent of colonia residents reported any alcohol problems in the past year, as compared to 20 percent of non-colonia residents.

- *Do residents of colonias have different substance use behaviors than individuals from the same area who do not live in colonias?*

Lifetime and past-year substance use was fairly similar between residents of colonias and residents of the non-colonia urban areas in the same counties. However, colonia residents were only about half as likely as non-colonia residents to report symptoms of alcohol or drug abuse or dependence. About 12 percent of colonia residents reported any alcohol problems in the past year, as compared to 20 percent of non-colonia residents from the same areas. About 3 percent of colonia residents reported drug-related problems, as compared to 6 percent living outside colonias. See Chapter 8.

- *How does the substance use of Hispanics living along the border compare with that of Hispanics living in other parts of Texas, in other parts of the country, and in sister cities on the Mexican side of the border?*

Border residents generally had lower rates of substance use and misuse than adults living elsewhere in Texas, with the exception that border Hispanics were equally likely as statewide Hispanics to be heavy drinkers. However, lower rates of past-year drinking and of alcohol problems among border Hispanics as compared to statewide Hispanics were primarily due to differences in age structure and gender distribution. Lower rates of past-year illicit drug use and drug misuse among border residents persisted even when age and gender were taken into account.

As compared to Hispanics nationwide, those living on the Texas border had slightly higher rates of alcohol use and slightly lower rates of illicit drug use. Rates of heavy drinking were identical between the two populations.

Rates of alcohol use were similar between cities on the Texas side of the border and those on the Mexican side. For two of the three sister cities which were compared, rates of heavy drinking were lower on the US side than on the Mexican side. On the other hand, reported rates of illicit drug use were substantially higher in the US border cities than in their Mexican counterparts. See Chapter 4.

- *Does acculturation increase or decrease substance use and misuse?*

Hispanics who were not very acculturated to US culture had the lowest rates of substance use and misuse. Individuals who were moderately or highly acculturated had behaviors very similar to those of non-Hispanics. Acculturation effects were particularly strong for women. See Chapter 5.

- *How do residents of the border area perceive their communities in terms of safety, availability of drugs, neighborhood drug use, and drug trafficking? How do these perceptions correlate with their own drug use?*

Perceived neighborhood safety was not related to heavy alcohol or illicit drug use. However, an environment of obvious street drug use and drug selling was positively related to respondents' own drug use.

An important finding of this study is that the intensive drug trafficking associated with the border region does not appear to significantly increase the drug use rates of the adult population living there. While respondents in all sites reported extensive drug trafficking in their areas, personal drug use was actually lower in the sites that reported higher trafficking. Similarly, drug use rates along the border were no higher–in fact, they were slightly lower–than rates elsewhere in the state or the country. Because of the rapid transshipment of smuggled drugs to other areas of the United States, the actual availability of drugs may not be any higher in border communities than elsewhere, despite popular perception that drugs are rampant. However, the presence of other factors that have been found in some studies to increase risk for substance use–such as low education, poverty, minority status, and a youthful population structure–makes it even more surprising that drug use rates along the border are relatively low (Harrison and Kennedy, 1996). See Chapter 6.

The intensive drug trafficking associated with the border region does not appear to significantly increase the drug use rates of the adult population living along the border.

- *To what extent are respondents who have alcohol- or drug-related problems motivated to seek substance abuse treatment? What barriers do they perceive to treatment?*

Motivation for treatment among respondents with substance problems is encouragingly high, despite the common concern that Hispanics might be reluctant to seek professional help for problems that they perceive as being a family matter. The main reason given for not seeking help was the peoples' belief that they could get better on their own. See Chapter 7.

- *What legal repercussions have respondents experienced as a result of their alcohol or drug use? How prevalent is driving while intoxicated?*

About 12 percent of border adults said they had been in trouble with the law because of a situation involving their substance use, such as driving while intoxicated, public intoxication, drug possession or sales, or committing an illegal act while drinking or on drugs. Some 28 percent of border adults admitted to having at some time driven while drunk whether or not they had been apprehended for the crime. Border residents who were dependent on drugs or alcohol were more likely than substance-dependent adults statewide to have gotten into trouble with the law because of their substance misuse. See Chapter 6.

- *Do individuals who misuse substances also experience problems in other areas, specifically in mental health and compulsive gambling?*

Individuals who were dependent on drugs or alcohol had significantly higher-than-average rates of depression. Those who abused substances had about the same rates of depression as individuals who had no substance-related problems. Compulsive gambling problems were also about twice as high among substance misusers than in the general population of border adults. See Chapter 6.

Compulsive gambling problems were also about twice as high among substance misusers than in the general population of border adults.

Methodological Issues

This study was also designed to examine a number of methodological issues.

- *Do face-to-face surveys produce different results than telephone surveys of the same population?*

A preliminary analysis suggested that the face-to-face Border Survey revealed generally higher rates of current substance use than did the Texas Adult Survey, a telephone survey, once age, gender, ethnicity, and geographical location were taken into account. Differences between the two survey modes in reporting alcohol and drug problems did not show one mode to produce consistently higher problem levels than the other. Some differences were gender-specific. A separate TCADA study will describe reporting differences between survey modes in more detail. See Chapter 4.

- *Do residents of households without telephones have different substance use behavior from residents of households with telephones?*

There was some indication that people who live in households that do not have telephones were more likely to use and abuse substances. This finding was true even when controlling for the fact that people without telephones are more likely to have low incomes. More details about differences between telephone and non-telephone households will be available in a separate TCADA study. See Chapter 4.

- *Are survey findings biased by the desire to conform to "socially acceptable behavior?"*

Because people have a tendency to overreport positive behaviors and underreport negative ones, it is probable that survey estimates of drug use among adults are on the conservative side. A more worrisome question is whether substance behavior is reported less truthfully by one demographic group than another because some groups are more concerned about social appearances than others. In this study, a tendency to value socially acceptable behavior was slightly more evident among older people, those with low incomes, low education and low acculturation, and residents of Laredo. These groups also tended to have low rates of substance use and misuse. Whether their reported rates are influenced by the desire for social acceptance is not known, but it is likely that any influence would be small, since differences in social desirability among groups were relatively small (approximately a half a point on a 6-point scale). See Chapter 1.

- *Can analysis of hair samples be used to estimate the extent of substance use misreporting?*

A sample of 259 respondents, who were not in the primary sample, were interviewed about their substance use, and samples of their hair were tested for the presence of cocaine, opiates, methamphetamines, and PCP. Hair testing can reveal whether a person has used a drug within approximately the past three months. The results of hair testing were compared with respondents' self reports of drug use to ascertain whether self report provided a good estimate of "true" levels of use, assuming that hair reports present a more accurate picture of drug use.

Almost two-thirds of those whose hair tested positive for cocaine use did not admit to use. Therefore, it is likely that self reports underestimate the true level of cocaine use in the general population.

In our sample, no respondent tested hair-positive for either opiates or PCP, and none said in the interview that they had used either one of those drugs within the past year. Only three respondents tested positive for methamphetamines, which provided too small a sample for analysis. Given the low base rates of use of these drugs in the general population, it would have required quite a large sample to raise the probability of finding individuals who had used these drugs.

Thirty-one respondents did test positive for cocaine use. Of these, just over one-third (11 people) admitted to cocaine use during the interview. Even though the subsample that was hair tested was twice as likely as the regular sample to say they had used cocaine in the past year (possibly motivated by the knowledge that they were going to be tested), nevertheless almost two-thirds of those who tested positive did not admit to use. It is, therefore, likely that self report does underestimate the true level of cocaine use in the general population.

With such a small sample, it was not possible to reliably discern the demographic characteristics of respondents who were more likely to admit to use. However, it was clear that the higher the level of use as indicated by higher hair levels of cocaine, the more likely the respondent was to self report past-year cocaine use. This finding increases our confidence that the self report method captures at least serious use.

It is also not possible to tell from these data whether these patterns of underreporting would be similar for other drugs. About one-fifth of those respondents who tested positive for cocaine but said they did not use it nevertheless admitted using some other kind of illicit drug during the past year (marijuana, downers, and inhalants). Reporting use of these other drugs suggests that respondents may be selectively underreporting use of some drugs that they consider less acceptable than others.

Prevention and Treatment Recommendations

About 122,100 adults living in the 13 counties on the Texas-Mexico border are currently dependent on alcohol or drugs, and another 170,400 show signs of alcohol or drug abuse.

While the finding that border drug and alcohol use and misuse levels are, in general, similar to or even slightly lower than that elsewhere in the state is an encouraging one, it does not mean that problems of substance misuse there can be ignored. About 122,100 adults living in the 13 counties bordering the Texas-Mexico border are currently dependent on alcohol or drugs, and another 170,400 show signs of alcohol or drug abuse. Added together, the rate of substance misuse translates into some 292,500 individuals who have some kind of substance-related problem. Of this group, about 70,000 are motivated for treatment at this time, and would be financially in need of publicly-funded treatment.[1] Recently the United States and Mexico have taken a strong position on the need to work jointly to combat drug problems in both countries. The Bi-National Drug Strategy calls for both countries to develop treatment and prevention programs focused on high-risk populations and to emphasize areas where illicit drug use has been increasing, "particularly along the common border."

It goes without saying that any prevention or treatment efforts that aim to reach the largely Hispanic population of the border must be culturally sensitive and specific to the needs of the community. Several excellent reports are available that focus on successful strategies for working among Hispanics, such as the Center for Substance Abuse Prevention's (CSAP) *A Hispanic/Latino Family Approach to Substance Abuse Prevention* (CSAP, 1995) and the Prevention and Treatment chapters of *Hispanic Substance Abuse* (Mayers, Kail, and Watts, 1993), and the reader is advised to consult these works for more details.

> *It has been suggested that Hispanics identify themselves less in terms of community members and primarily as family members.*

Lifshitz (1990/1991) emphasizes the importance of understanding and respecting the social expectations of the Hispanic community when developing prevention or treatment programs. These include concepts such as:

- *Simpatía*, or the preference for positive interpersonal interactions. "*Simpatía* mandates politeness and respect and discourages assertiveness, direct negative responses, and criticism. Any ... prevention activities that involve confrontation will be interpreted as inappropriate" (Lifshitz, 1990/1991).
- *Personalismo*, or a preference for relationships with others in one's own social group. "In practice, *personalismo* means that Latinos are more likely to trust and cooperate with health care workers whom they know personally, and with whom they have had pleasant conversations [*la plática*]" (ibid.).
- *Respecto*, or the need to demonstrate respect, especially for authority figures. "It also requires that personal integrity be maintained in interaction with others. Out of *respecto*, however, Latinos are extremely reluctant to question authority–even if they do not understand what the authority is telling them ... Educators must not assume that silence equals understanding or accord" (ibid.).

Marín and Marín (1991) discuss other cultural values that are important in the Hispanic community. These include allocentrism, which emphasizes the needs, attitudes, and values of the group vs. individualistic, competitive, achievement-oriented cultures; a more flexible and present-oriented time orientation; more traditional gender roles; and familialism, involving individual's strong identification with and attachment to their nuclear and extended families, with strong feelings of loyalty, reciprocity, and solidarity.

It has been suggested that Hispanics identify themselves less in terms of community members and primarily as family members. The ideal Hispanic family works as a team, with the focus on the good of the whole or the good of one another. Substance prevention and treatment for Hispanics should therefore emphasize the individual as a family member, and stress the impact that an individual's substance misuse has on the family as a whole and the benefits that will accrue to the family from addressing dysfunctional behavior (OSAP, 1990). This is the focus of CSAP's document which describes several successful family-based or "family-oriented, community-based" interventions to prevent substance abuse (CSAP, 1995).

The Office for Substance Abuse Prevention has also summarized some general guidelines for prevention efforts aimed at Hispanics (OSAP, 1990). These include:

- Including and emphasizing the entire family and, if possible, its religious leaders. "Prevention efforts will be most effective if counselors reinforce family units and value them as a whole."
- Helping Hispanic fathers recognize the importance of their role or example to their sons' self image regarding alcohol and other drug use. Strengthening parents' own self-esteem, which may have suffered during the acculturation process.
- Educational efforts to reduce the shame associated with reaching out for help, especially for women.
- Stress reduction and recreational programs that help Hispanic families adjust to mainstream American culture without abandoning their own.
- Reaching audiences through Spanish-speaking, community-level organizations and leaders.
- Being aware of the effects of traditional gender roles.

It is important that treatment providers are able to speak the language of the clients they serve–not only Spanish but also the special argot of drug users.

Culturally sensitive and universally appropriate Spanish language materials are relatively scarce. Although many organizations translate their publications into Spanish, literal translations may sometimes miss relevant cultural or linguistic factors that may influence attitudes and behaviors toward substance use. CSAP and TCADA are currently in the process of developing new materials that are culturally competent and appropriate for Hispanic/Latino communities.

Ramos (1998) stresses the further importance of treatment providers being able to speak the language of the clients they serve–not only Spanish but also the special argot of drug users. "If you want to learn about drug use and about *tecatos* [intravenous drug users], you have to be in the fire with them. Then, you will learn how they talk, how they use words, and what the words mean to them ..." (id.).

Based on lessons learned from national campaigns and communication programs that have targeted Hispanics, a CSAP Technical Assistance Bulletin (CSAP, 1997) makes the following recommendations concerning developing effective messages and materials for Hispanic audiences:

- Always avoid stereotypes.
- Promote respect for elders and promote interest in disappearing traditions.

- Listen to and respect youth and promote this attitude among Hispanic parents.
- Facilitate sharing and discussion of experiences.
- Build on the strengths of the Hispanic community and its cultural values.
- Promote the importance of extended kinship in family relations. Also promote non-family forms of close integration between individuals, such as *compadrazgo* and friendship.
- Promote communal values and neighborly attitudes such as *barrio*, fiestas, and traditions; and in general support all forms of extended social networking that are central to Hispanic culture.
- Encourage general civic values but also support all practices and events that promote ethnic cultural pride and higher self-esteem among Hispanics.
- Praise and use as role models particularly contemporary and historical heroes and figures who are of specific significance for the Hispanic subgroup.
- Adapt printed materials to better fit the needs and specificities of Hispanics. Develop and write the text in Spanish as well as English; do not rely on direct translations of English text.

Endnote

[1] These numbers were based on multiplying the 1996 estimated border adult population of 1,208,671 by 10.1 percent who were dependent on substances, 14.1 percent who abused substances, and 5.8 percent who in addition to abusing or depending on substances were motivated for treatment and were medically indigent.

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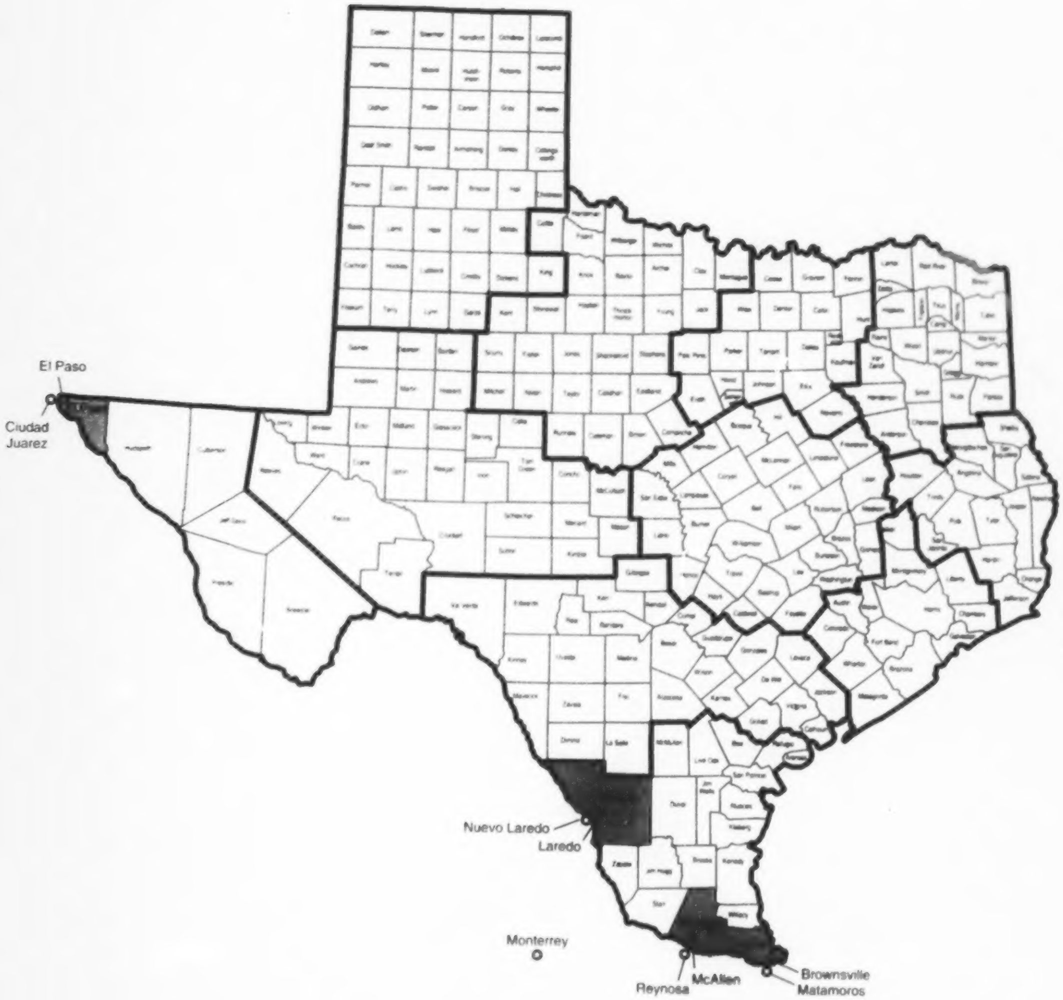
Appendix A. Map of Texas

Map of Texas



The Texas Border Survey was conducted in the four shaded counties shown.

County	**City**	**Mexican Sister City**
El Paso	El Paso	Ciudad Juarez
Webb	Laredo	Nuevo Laredo/Monterrey
Hidalgo	McAllen	Reynosa
Cameron	Brownsville	Matamoros

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Appendix B. Demographic Characteristics of Sampled Counties

Table B1. Selected Socio-Demographic and Substance-Related Variables of Texas Border Counties from which the Sample was Drawn: 1996

	El Paso County	Webb County	Hidalgo County	Cameron County	State Total
Largest City in County	El Paso	Laredo	McAllen	Brownsville	
Population Characteristics, 1996					
Population	698,945	164,336	476,151	304,345	18,967,764
Rate of Growth 1990-1996	18.1%	23.3%	24.1%	17.0%	11.7%
Percentage of population < age 18	32.3%	36.8%	35.2%	33.9%	28.5%
Percent urban	97.5%	92.8%	76.5%	79.2%	80.3%
Percent foreign born	23.9%	25.0%	24.7%	22.1%	9.0%
Age Category, 1996					
Age 18-24	17.9%	19.1%	18.0%	16.9%	15.6%
Age 25-34	25.5%	25.8%	23.0%	22.7%	25.4%
Age 35+	56.5%	55.1%	59.0%	60.4%	59%
Gender, 1996					
Male	47.3%	46.1%	46.8%	46.2%	48.4%
Female	52.7%	53.9%	53.2%	53.8%	51.6%
Ethnicity, 1996					
Hispanic	65.4%	92.7%	80.9%	77.0%	26.8%
Other	34.6%	7.3%	19.1%	23.0%	73.2%
Education (persons >25 yrs), 1996					
Non-high school graduate	36.3%	52.2%	53.4%	50.0%	27.8%
High school graduate	23.0%	16.5%	19.6%	19.7%	25.6%
More than high school	40.8%	31.4%	27.0%	30.2%	46.7%
Socio-Economic Characteristics, 1996					
Median annual household income	$22,644	$18,074	$16,703	$17,336	$27,016
Percent below poverty level	26.8%	38.2%	41.9%	39.7%	18.1%
Unemployment rate	11.6%	12.7%	19.0%	12.6%	5.6%
Have telephone in household	90.7%	86.0%	83.5%	83.0%	91.4%
Health-Related Statistics, 1996					
No. of physicians per 100,000	136.2	90.1	85.5	111.5	181.3
No. of substance-related adult deaths	393	82	220	149	12,654
Substance-Related Crime, 1996					
Crime rate, 1992	8.4%	7.5%	7.8%	7.2%	7.1%
No. of Substance-related motor vehicle accidents	563	127	572	317	19,780
No. of substance-related arrests (except trafficking)	9,515	2,612	14,958	12,037	363,988
% of all arrests	42.0%	41.4%	64.1%	61.4%	53.7%
No. of arrests for drug trafficking	71	18	53	20	9,392
% of all arrests	0.3%	0.3%	0.2%	0.1%	1.4%

Sources: 1990 US Population Census Tapes STF1A and STF3A; Texas State Data Center; Texas Almanac; Texas-Mexico Border County Demographics and Health Statistics (University of Texas, Texas-Mexico Border Health Coordination Office); *Texas County Databook of Substance-Related Statistics: 1996* and *1997 Indicators of Alcohol and Drug Abuse in Texas* (TCADA).

Appendix C. Logistic Regression Results

A note on logistic regression

Logistic regression is a form of statistical data analysis that allows an assessment of the relationship between an outcome (*dependent variable*), such as alcohol use, and one or more *independent variables*, such as demographic characteristics, that are thought to be associated with it. Such an analysis can show the unique, "net" effect of each independent variable while "controlling for" or holding constant the effect of the other variables.

The "odds ratios" column in Tables C1 through C5 can be interpreted as the relative likelihood or odds, as compared to the reference category, that a respondent with a particular demographic characteristic would exhibit the outcome of interest. For instance, an odds ratio of 3.12 in Table C1 means that males are over three times as likely as females to have drunk alcohol. Conversely, an odds ratio of .51 in Table C5 means that individuals who had some college education were about half as likely as high school graduates (the reference category) to have experienced a drug-related problem. An odds ratio of 1.00 means that there is no difference between the groups being compared.

The "p-value" column indicates the statistical significance of the finding, with lower values suggesting that the differences found are likely to be true ones and not due to chance. Conventionally, the differences with a p-value of .05 or less are considered to represent robust (true) differences.

Table C1. Logistic Regression of Demographic Variables on Past-Year Alcohol Use Among Respondents Living on the Texas-Mexico Border: 1996

Dependent variable: Drank alcohol in the past year

Independent Variables	Parameter Estimate	Standard Error	Odds Ratio	P-Value
AGE	-0.04	0.01	0.96	0.00
MALE	1.14	0.22	3.12	0.00
HISPANIC	0.01	0.44	1.01	0.98
INCOME	0.20	0.07	1.22	0.01
NO HIGH SCHOOL	-0.11	0.37	0.89	0.76
HS DROPOUT	0.18	0.27	1.20	0.51
SOME COLLEGE	0.58	0.37	1.78	0.12
EL PASO	0.91	0.28	2.49	0.00
MC ALLEN	-0.03	0.27	0.97	0.92
BROWNSVILLE	0.28	0.26	1.32	0.28
SOCIAL DESIRABILITY	-0.03	0.06	0.97	0.62
LOW ACCULTURATION	-0.06	0.24	0.95	0.81
HIGH ACCULTURATION	0.21	0.46	1.24	0.65

Table C2. Logistic Regression of Demographic Variables on Past-Month Heavy Alcohol Use Among Respondents Living on the Texas-Mexico Border: 1996

Dependent variable: Drank heavily in the past month

Independent Variables	Parameter Estimate	Standard Error	Odds Ratio	P-Value
AGE	-0.02	0.01	0.98	0.07
MALE	2.74	0.54	15.54	0.00
HISPANIC	-0.12	0.47	0.89	0.80
INCOME	0.13	0.12	1.14	0.29
NO HIGH SCHOOL	0.10	0.58	1.10	0.87
HS DROPOUT	-0.26	0.38	0.77	0.50
SOME COLLEGE	-1.06	0.32	0.35	0.00
EL PASO	-0.56	0.37	0.57	0.13
MC ALLEN	-0.50	0.44	0.60	0.25
BROWNSVILLE	-0.07	0.45	0.93	0.87
SOCIAL DESIRABILITY	-0.05	0.10	0.95	0.65
LOW ACCULTURATION	-0.96	0.52	0.38	0.07
HIGH ACCULTURATION	0.39	0.30	1.47	0.21

Table C3. Logistic Regression of Demographic Variables on Past-Year Illicit Drug Use Among Respondents Living on the Texas-Mexico Border: 1996

Dependent variable: Used illicit drug in the past year

Independent Variables	Parameter Estimate	Standard Error	Odds Ratio	P-Value
AGE	-0.06	0.02	0.94	0.00
MALE	1.37	0.39	3.93	0.00
HISPANIC	-0.26	0.49	0.77	0.59
INCOME	0.00	0.12	1.00	0.97
NO HIGH SCHOOL	0.46	0.61	1.58	0.46
HS DROPOUT	0.51	0.49	1.66	0.30
SOME COLLEGE	-0.50	0.33	0.61	0.14
EL PASO	1.06	0.39	2.88	0.01
MC ALLEN	1.29	0.40	3.63	0.00
BROWNSVILLE	0.20	0.42	1.22	0.63
SOCIAL DESIRABILITY	-0.29	0.10	0.75	0.00
LOW ACCULTURATION	-0.84	0.49	0.43	0.09
HIGH ACCULTURATION	0.22	0.35	1.25	0.53

Table C4. Logistic Regression of Demographic Variables on Past-Year Alcohol-Related Problems Among Respondents Living on the Texas-Mexico Border: 1996

Dependent variable: Had an alcohol-related problem in the past year

Independent Variables	Parameter Estimate	Standard Error	Odds Ratio	P-Value
AGE	-0.02	0.01	0.98	0.13
MALE	1.39	0.26	4.01	0.00
HISPANIC	-0.12	0.53	0.89	0.82
INCOME	0.12	0.08	1.13	0.13
NO HIGH SCHOOL	-0.10	0.41	0.90	0.81
HS DROPOUT	0.07	0.37	1.07	0.86
SOME COLLEGE	0.08	0.34	1.09	0.81
EL PASO	1.06	0.26	2.89	0.00
MC ALLEN	0.47	0.37	1.60	0.20
BROWNSVILLE	0.32	0.31	1.38	0.31
SOCIAL DESIRABILITY	-0.19	0.09	0.83	0.03
LOW ACCULTURATION	-0.28	0.25	0.76	0.26
HIGH ACCULTURATION	-0.34	0.47	0.71	0.47

Table C5. Logistic Regression of Demographic Variables on Past-Year Drug-Related Problems Among Respondents Living on the Texas-Mexico Border: 1996

Dependent variable: Had a drug-related problem in past year

Independent Variables	Parameter Estimate	Standard Error	Odds Ratio	P-Value
AGE	-0.07	0.02	0.93	0.00
MALE	1.25	0.49	3.48	0.01
HISPANIC	-0.07	0.69	0.93	0.92
INCOME	0.02	0.13	1.02	0.90
NO HIGH SCHOOL	1.16	0.80	3.18	0.15
HS DROPOUT	0.43	0.44	1.53	0.34
SOME COLLEGE	-0.68	0.47	0.51	0.15
EL PASO	1.02	0.49	2.77	0.04
MC ALLEN	1.40	0.52	4.04	0.01
BROWNSVILLE	-0.89	0.64	0.41	0.17
SOCIAL DESIRABILITY	-0.31	0.13	0.73	0.02
LOW ACCULTURATION	-0.89	0.59	0.41	0.14
HIGH ACCULTURATION	0.33	0.41	1.39	0.42

Explanation of independent variables:

Age: interval, range 18 - 88.
Income: interval, 7 categories ranging from $10,000 or less to $60,000 or more.
Education: HS graduate is the reference category.
Site: Laredo is the reference category.
Acculturation: mid-level acculturation is the reference category.
Social desirability: interval, range 0 to 5.

Appendix D. Alcohol and Drug Problem Questions

Alcohol

All respondents who had had at least one drink in the past 30 days and at least 10 drinks in the past year were asked the statements listed below.

Tell me if you have had the experience in the past 12 months.

1. Have you often drunk much larger amounts of alcohol than you intended to, or for more days in a row than you intended?
2. Have you often wanted to cut down on your drinking, or have you ever tried to cut down but couldn't?
3. Has there ever been a period when you spent a great deal of time drinking alcohol, getting alcohol, or getting over its effects?
4. Have you often been high on alcohol or feeling its after effects while at work, school, or taking care of children?
5. Have you often been high on alcohol or feeling its after effects in a situation where it increased your chances of getting hurt–for instance, when driving a car or boat, using knives, machinery or guns, crossing against traffic, climbing, or swimming?
6. Have you ever given up or greatly reduced important activities in order to drink–activities like sports, work, school or associating with friends or relatives?
7. Did you have any emotional or psychological problems from drinking alcohol–such as feeling uninterested in things, depressed, suspicious of people, paranoid, or having strange ideas? Did you continue to use alcohol after you knew it caused you those problems?
8. Did you have any health problems that were caused by, or aggravated by, using alcohol? Did you continue to use alcohol after you knew it caused you those problems?
9. Has drinking caused you considerable problems with your family, with friends, on the job, at school, or with the police? Did you continue to use alcohol after you knew it caused you those problems?
10. Did you ever find that you needed to drink more just to get the same effect, or that drinking the same amount had less effect than before?
11. Has stopping or cutting down on alcohol made you sick or given you withdrawal symptoms, such as the shakes or made you feel depressed or anxious?
12. Did you ever have to drink again (or more) to make withdrawal symptoms go away or to keep from having them?
13. In the past 12 months, have you ever felt that you *needed* or were *dependent* on alcohol?

Other Drugs *(Substitute name of drug used where possible.)*

All of the respondents who had ever used a drug in the past 12 months were asked the statements listed below.

For each of the following statements, tell me if you have had that particular experience in the past 12 months. I am asking about drugs other than alcohol.

1. Have you often used much larger amounts of [drug] than you intended to, or for a longer period than you intended to?
2. Have you often wanted to cut down on [drug] or have you ever tried to cut down but you couldn't ?
3. Has there ever been a period when you spent a great deal of your time using [drug], getting [drug], or getting over [its/their] effects?
4. Have you often been high on [drug] or feeling [its/their] after effects while at work, at school, or taking care of children?
5. Have you often been high on [drug] or feeling its after effects in a situation where it increased your chances of getting hurt–for instance, when driving a car or boat, using knives, machinery or guns, crossing against traffic, climbing, or swimming?
6. Have you ever given up or greatly reduced important activities in order to use [drug]–activities like sports, work, school or associating with friends or relatives?
7. Did you have any emotional or psychological problems from using [drug]–such as feeling uninterested in things, depressed, suspicious of people, paranoid, or having strange ideas? Did you continue to use [drug] after you knew it caused you those problems?
8. Did you have any health problems that were caused by, or aggravated by, using [drug]? Did you continue to use [drug] after you knew it caused you those problems?
9. Did your use of [drug] cause you considerable problems with your family, with friends, on the job, at school, or with the police? Did you continue to use [drug] after you knew it caused you those problems?
10. Did you ever find that you needed larger amounts of [drug] just to get the same effect, or that the same amount had less effect than before?
11. Has stopping or cutting down on [drug] made you sick or given you withdrawal symptoms?
12. Did you ever have to take [drug] again (or more) to make withdrawal symptoms go away or to keep from having them?
13. In the past 12 months, have you ever felt that you *needed* or were *dependent* on [drug]?

Appendix E. Comparison of Border Adults to Adults Statewide

Table E1. Comparison of Past-Year Substance Use and Misuse Rates of Texas Border Adults to Texas Adults Statewide: 1996

	Hispanics			Non-Hispanics			All TX Adults Statewide N=8,031
	Border N=712	Non-Border N=1,319		Border N=247	Non-Border N=5,753		
LICIT SUBSTANCE USE							
Tobacco	25.2%	26.6%	ns	25.0%	28.3%	ns	27.8%
Alcohol	56.7%	62.8%	(*)	71.3%	65.6%	*	64.7%
Past-Month Heavy Alcohol	4.6%	5.3%	ns	3.2%	5.5%	(*)	5.4%
Inhalants	0.1%	0.4%	(*)	0.0%	0.3%	*	0.3%
ILLICIT SUBSTANCE USE							
Marijuana	3.0%	6.1%	**	3.0%	6.4%	**	6.1%
Cocaine	0.7%	1.8%	*	0.5%	1.5%	(*)	1.4%
Crack	0.1%	0.3%	ns	0.0%	0.3%	*	0.3%
Uppers	0.4%	0.9%	ns	0.3%	1.3%	(*)	1.2%
Downers	0.3%	0.4%	ns	0.8%	1.2%	(**)	1.0%
Heroin	0.0%	0.0%	ns	0.0%	0.1%	ns	0.1%
Other Opiates	0.2%	0.3%	ns	1.2%	0.6%	ns	0.6%
Psychedelics	0.7%	1.2%	ns	1.1%	1.7%	(*)	1.5%
Any Illicit Drug	3.9%	7.1%	**	3.7%	8.0%	**	7.5%
SUBSTANCE MISUSE							
Any Alcohol Problem	14.1%	17.4%	(*)	13.3%	16.9%	ns	16.8%
Alcohol Dependence	3.9%	6.1%	(*)	3.5%	5.4%	(*)	5.4%
Any Drug Problem	1.7%	4.4%	**	2.4%	4.3%	(*)	4.1%
Drug Dependence	0.8%	2.2%	*	1.4%	2.2%	(*)	2.1%
Any Alcohol or Drug Problem	14.4%	18.4%	(*)	13.6%	18.7%	(*)	18.3%
Any Dependence	4.2%	7.2%	**	3.8%	7.0%	(**)	6.8%

Note:
All data are from the *1996 Texas Survey of Substance Use Among Adults*, conducted by telephone.
Significance is assessed by chi-square tests where * p<.05 and ** p<.01. "Ns" means not statistically significant.
Parentheses around asterisk means that the differences were no longer significant once age and gender were controlled.

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Appendix F. Substance Use Prevalence Tables

Table F1. Prevalence and Recency of Substance Use by Age, All Border Adults in El Paso, Laredo, McAllen, and Brownsville: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**68.6%**	**30.1%**	**4.5%**	**34.1%**	**31.4%**
Adults 18-24	66.5%	32.1%	8.7%	25.7%	33.5%
Adults 25-34	71.9%	36.5%	7.5%	27.9%	28.1%
Adults 35 & older	67.9%	26.8%	1.9%	39.2%	32.1%
ALCOHOL (All adults)	**84.9%**	**52.3%**	**12.9%**	**19.7%**	**15.1%**
Adults 18-24	87.9%	60.5%	14.2%	13.3%	12.1%
Adults 25-34	86.5%	58.5%	14.6%	13.5%	13.5%
Adults 35 & older	83.3%	47.2%	11.9%	24.2%	16.7%
MARIJUANA (All adults)	**27.2%**	**2.4%**	**3.6%**	**21.2%**	**72.8%**
Adults 18-24	40.2%	6.0%	9.3%	24.9%	59.8%
Adults 25-34	32.3%	4.4%	3.5%	24.4%	67.7%
Adults 35 & older	21.0%	0.4%	1.9%	18.7%	79.0%
INHALANTS (All adults)	**6.0%**	**0.3%**	**0.1%**	**5.6%**	**94.0%**
Adults 18-24	11.5%	0.7%	0.4%	10.3%	88.5%
Adults 25-34	6.3%	0.1%	0.1%	6.1%	93.7%
Adults 35 & older	4.2%	0.3%	0.0%	3.9%	95.8%
COCAINE (All adults)	**10.3%**	**1.4%**	**1.3%**	**7.6%**	**89.7%**
Adults 18-24	12.6%	1.8%	2.9%	7.9%	87.4%
Adults 25-34	16.6%	3.9%	2.1%	10.6%	83.4%
Adults 35 & older	7.0%	0.2%	0.5%	6.3%	93.0%
CRACK (All adults)	**3.4%**	**1.2%**	**0.6%**	**1.6%**	**96.6%**
Adults 18-24	3.1%	0.3%	0.2%	2.6%	96.9%
Adults 25-34	5.4%	1.2%	2.3%	1.9%	94.6%
Adults 35 & older	2.7%	1.5%	0.0%	1.2%	97.3%
COCAINE OR CRACK (All adults)	**10.4%**	**2.3%**	**1.2%**	**6.9%**	**89.6%**
Adults 18-24	12.9%	1.8%	3.0%	8.0%	87.1%
Adults 25-34	16.6%	3.9%	2.1%	10.6%	83.4%
Adults 35 & older	7.0%	1.7%	0.2%	5.0%	93.0%
UPPERS (All adults)	**8.7%**	**0.2%**	**0.6%**	**7.8%**	**91.3%**
Adults 18-24	8.8%	0.5%	2.1%	6.3%	91.2%
Adults 25-34	10.6%	0.1%	0.9%	9.6%	89.4%
Adults 35 & older	7.8%	0.3%	0.1%	7.5%	92.2%
DOWNERS (All adults)	**3.6%**	**0.8%**	**0.6%**	**2.2%**	**96.4%**
Adults 18-24	7.0%	1.7%	2.7%	2.6%	93.0%
Adults 25-34	5.6%	1.2%	0.0%	4.3%	94.4%
Adults 35 & older	1.6%	0.3%	0.2%	1.2%	98.4%
HEROIN (All adults)	**2.0%**	**0.2%**	**0.1%**	**1.7%**	**98.0%**
Adults 18-24	0.6%	0.0%	0.0%	0.6%	99.4%
Adults 25-34	1.0%	0.8%	0.0%	0.3%	99.0%
Adults 35 & older	2.8%	0.0%	0.3%	2.6%	97.2%
OTHER OPIATES (All adults)	**1.0%**	**0.5%**	**0.1%**	**0.5%**	**99.0%**
Adults 18-24	1.5%	0.1%	0.0%	1.4%	98.5%
Adults 25-34	1.5%	1.2%	0.3%	0.0%	98.5%
Adults 35 & older	0.7%	0.3%	0.0%	0.4%	99.3%
PSYCHEDELICS (All adults)	**8.7%**	**0.7%**	**0.3%**	**7.7%**	**91.3%**
Adults 18-24	11.6%	2.1%	1.2%	8.3%	88.4%
Adults 25-34	10.4%	0.8%	0.4%	9.3%	89.6%
Adults 35 & older	7.1%	0.3%	0.0%	6.8%	92.9%
ANY ILLICIT DRUG(S) (All adults)	**28.6%**	**4.0%**	**4.3%**	**20.3%**	**71.4%**
Adults 18-24	42.6%	7.8%	11.3%	23.5%	57.4%
Adults 25-34	34.3%	5.7%	5.2%	23.4%	65.7%
Adults 35 & older	21.9%	2.1%	1.8%	18.0%	78.1%

Table F2. Prevalence and Recency of Substance Use by Age, All Border Adults in El Paso: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**76.9%**	**33.1%**	**4.7%**	**39.1%**	**23.1%**
Adults 18-24	74.5%	33.2%	10.1%	31.2%	25.5%
Adults 25-34	78.1%	35.4%	9.7%	33.0%	21.9%
Adults 35 & older	77.1%	32.0%	0.7%	44.4%	22.9%
ALCOHOL (All adults)	**91.8%**	**58.9%**	**13.7%**	**19.3%**	**8.2%**
Adults 18-24	95.6%	69.4%	17.3%	8.9%	4.4%
Adults 25-34	94.5%	59.3%	17.6%	17.6%	5.5%
Adults 35 & older	89.4%	55.2%	10.8%	23.5%	10.6%
MARIJUANA (All adults)	**37.6%**	**2.4%**	**3.5%**	**31.7%**	**62.4%**
Adults 18-24	50.1%	6.7%	9.4%	34.0%	49.9%
Adults 25-34	38.7%	4.4%	1.5%	32.8%	61.3%
Adults 35 & older	33.0%	0.1%	2.4%	30.5%	67.0%
INHALANTS (All adults)	**9.1%**	**0.6%**	**0.0%**	**8.5%**	**90.9%**
Adults 18-24	14.8%	1.4%	0.0%	13.4%	85.2%
Adults 25-34	6.3%	0.0%	0.0%	6.3%	93.7%
Adults 35 & older	8.4%	0.6%	0.0%	7.9%	91.6%
COCAINE (All adults)	**14.0%**	**1.3%**	**1.8%**	**10.9%**	**86.0%**
Adults 18-24	15.0%	2.9%	1.5%	10.5%	85.0%
Adults 25-34	22.5%	3.2%	3.9%	15.4%	77.5%
Adults 35 & older	9.9%	0.0%	1.0%	9.0%	90.1%
CRACK (All adults)	**5.3%**	**2.7%**	**0.6%**	**2.0%**	**94.7%**
Adults 18-24	5.2%	0.6%	0.0%	4.5%	94.8%
Adults 25-34	5.9%	2.6%	2.2%	1.1%	94.1%
Adults 35 & older	5.1%	3.5%	0.0%	1.6%	94.9%
COCAINE OR CRACK (All adults)	**14.0%**	**3.3%**	**1.5%**	**9.2%**	**86.0%**
Adults 18-24	15.0%	2.9%	1.5%	10.5%	85.0%
Adults 25-34	22.5%	3.2%	3.9%	15.4%	77.5%
Adults 35 & older	9.9%	3.5%	0.4%	6.0%	90.1%
UPPERS (All adults)	**15.6%**	**0.5%**	**0.8%**	**14.2%**	**84.4%**
Adults 18-24	13.5%	1.0%	1.8%	10.7%	86.5%
Adults 25-34	15.2%	0.0%	2.0%	13.2%	84.8%
Adults 35 & older	16.5%	0.6%	0.0%	15.9%	83.5%
DOWNERS (All adults)	**4.7%**	**1.3%**	**0.5%**	**2.9%**	**95.3%**
Adults 18-24	7.9%	1.6%	2.5%	3.8%	92.1%
Adults 25-34	7.3%	2.6%	0.0%	4.7%	92.7%
Adults 35 & older	2.4%	0.6%	0.0%	1.9%	97.6%
HEROIN (All adults)	**3.8%**	**0.4%**	**0.3%**	**3.0%**	**96.2%**
Adults 18-24	0.6%	0.0%	0.0%	0.6%	99.4%
Adults 25-34	2.2%	1.7%	0.0%	0.6%	97.8%
Adults 35 & older	5.5%	0.0%	0.6%	4.9%	94.5%
OTHER OPIATES (All adults)	**2.1%**	**1.0%**	**0.1%**	**1.0%**	**97.9%**
Adults 18-24	2.4%	0.0%	0.0%	2.4%	97.6%
Adults 25-34	3.2%	2.6%	0.6%	0.0%	96.8%
Adults 35 & older	1.5%	0.6%	0.0%	0.9%	98.5%
PSYCHEDELICS (All adults)	**16.7%**	**1.2%**	**0.6%**	**14.9%**	**83.3%**
Adults 18-24	21.9%	2.4%	2.5%	17.0%	78.1%
Adults 25-34	17.1%	1.6%	0.8%	14.7%	82.9%
Adults 35 & older	14.9%	0.6%	0.0%	14.3%	85.1%
ANY ILLICIT DRUG(S) (All adults)	**39.3%**	**5.1%**	**4.8%**	**29.5%**	**60.7%**
Adults 18-24	53.4%	8.3%	11.4%	33.7%	46.6%
Adults 25-34	41.9%	6.1%	5.4%	30.5%	58.1%
Adults 35 & older	33.6%	3.6%	2.4%	27.6%	66.4%

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Table F3. Prevalence and Recency of Substance Use by Age, All Border Adults in Laredo: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**55.7%**	**28.2%**	**2.2%**	**25.2%**	**44.3%**
Adults 18-24	49.1%	25.7%	5.9%	17.5%	50.9%
Adults 25-34	49.2%	26.3%	2.3%	20.6%	50.8%
Adults 35 & older	61.0%	30.0%	0.9%	30.1%	39.0%
ALCOHOL (All adults)	**76.7%**	**44.1%**	**10.5%**	**22.1%**	**23.3%**
Adults 18-24	74.4%	45.3%	14.8%	14.3%	25.6%
Adults 25-34	73.8%	44.5%	14.6%	14.7%	26.2%
Adults 35 & older	78.9%	43.6%	7.1%	28.2%	21.1%
MARIJUANA (All adults)	**13.8%**	**1.0%**	**1.9%**	**10.9%**	**86.2%**
Adults 18-24	18.1%	2.8%	4.0%	11.3%	81.9%
Adults 25-34	11.6%	0.1%	2.6%	9.0%	88.4%
Adults 35 & older	13.3%	0.7%	0.9%	11.7%	86.7%
INHALANTS (All adults)	**1.4%**	**0.0%**	**0.1%**	**1.3%**	**98.6%**
Adults 18-24	3.9%	0.0%	0.4%	3.5%	96.1%
Adults 25-34	0.3%	0.0%	0.0%	0.3%	99.7%
Adults 35 & older	1.0%	0.0%	0.0%	1.0%	99.0%
COCAINE (All adults)	**3.8%**	**0.0%**	**0.7%**	**3.1%**	**96.2%**
Adults 18-24	4.5%	0.0%	1.7%	2.8%	95.5%
Adults 25-34	1.4%	0.0%	0.4%	1.0%	98.6%
Adults 35 & older	4.6%	0.0%	0.4%	4.2%	95.4%
CRACK (All adults)	**1.3%**	**0.0%**	**0.2%**	**1.0%**	**98.7%**
Adults 18-24	3.1%	0.0%	1.1%	1.9%	96.9%
Adults 25-34	0.2%	0.0%	0.0%	0.2%	99.8%
Adults 35 & older	1.1%	0.0%	0.0%	1.1%	98.9%
COCAINE OR CRACK (All adults)	**4.3%**	**0.0%**	**0.9%**	**3.4%**	**95.7%**
Adults 18-24	7.2%	0.0%	2.8%	4.4%	92.8%
Adults 25-34	1.6%	0.0%	0.4%	1.2%	98.4%
Adults 35 & older	4.6%	0.0%	0.4%	4.2%	95.4%
UPPERS (All adults)	**3.2%**	**0.0%**	**0.6%**	**2.5%**	**96.8%**
Adults 18-24	3.4%	0.0%	1.3%	2.1%	96.6%
Adults 25-34	2.6%	0.0%	0.0%	2.6%	97.4%
Adults 35 & older	3.4%	0.0%	0.7%	2.7%	96.6%
DOWNERS (All adults)	**0.9%**	**0.0%**	**0.1%**	**0.8%**	**99.1%**
Adults 18-24	2.6%	0.1%	0.0%	2.4%	97.4%
Adults 25-34	0.4%	0.0%	0.4%	0.0%	99.6%
Adults 35 & older	0.6%	0.0%	0.0%	0.6%	99.4%
HEROIN (All adults)	**0.6%**	**0.0%**	**0.0%**	**0.6%**	**99.4%**
Adults 18-24	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	1.0%	0.0%	0.0%	1.0%	99.0%
OTHER OPIATES (All adults)	**0.2%**	**0.1%**	**0.0%**	**0.1%**	**99.8%**
Adults 18-24	0.5%	0.5%	0.0%	0.0%	99.5%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	0.3%	0.0%	0.0%	0.3%	99.7%
PSYCHEDELICS (All adults)	**1.1%**	**0.0%**	**0.0%**	**1.0%**	**98.9%**
Adults 18-24	2.8%	0.1%	0.0%	2.7%	97.2%
Adults 25-34	0.9%	0.0%	0.0%	0.9%	99.1%
Adults 35 & older	0.5%	0.0%	0.0%	0.5%	99.5%
ANY ILLICIT DRUG(S) (All adults)	**16.2%**	**1.1%**	**2.1%**	**13.0%**	**83.8%**
Adults 18-24	18.9%	3.3%	4.0%	11.7%	81.1%
Adults 25-34	14.4%	0.1%	2.9%	11.4%	85.6%
Adults 35 & older	16.1%	0.7%	1.1%	14.3%	83.9%

Table F4. Prevalence and Recency of Substance Use by Age, All Border Adults in McAllen: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**64.5%**	**26.1%**	**3.2%**	**35.1%**	**35.5%**
Adults 18-24	61.6%	34.3%	5.2%	22.1%	38.4%
Adults 25-34	72.1%	43.3%	6.5%	22.3%	27.9%
Adults 35 & older	62.2%	16.7%	1.3%	44.2%	37.8%
ALCOHOL (All adults)	**79.7%**	**45.2%**	**12.2%**	**22.3%**	**20.3%**
Adults 18-24	84.3%	51.4%	9.2%	23.7%	15.7%
Adults 25-34	82.2%	61.6%	11.4%	9.3%	17.8%
Adults 35 & older	77.3%	36.6%	13.5%	27.2%	22.7%
MARIJUANA (All adults)	**21.1%**	**3.9%**	**5.4%**	**11.8%**	**78.9%**
Adults 18-24	38.4%	9.2%	12.6%	16.6%	61.6%
Adults 25-34	30.5%	7.8%	8.7%	14.0%	69.5%
Adults 35 & older	12.1%	0.8%	1.9%	9.4%	87.9%
INHALANTS (All adults)	**4.5%**	**0.1%**	**0.0%**	**4.5%**	**95.5%**
Adults 18-24	12.0%	0.3%	0.0%	11.6%	88.0%
Adults 25-34	9.0%	0.0%	0.0%	9.0%	91.0%
Adults 35 & older	0.5%	0.0%	0.0%	0.5%	99.5%
COCAINE (All adults)	**8.5%**	**2.8%**	**0.9%**	**4.8%**	**91.5%**
Adults 18-24	10.7%	1.0%	5.1%	4.6%	89.3%
Adults 25-34	15.2%	9.4%	0.0%	5.8%	84.8%
Adults 35 & older	5.1%	0.7%	0.0%	4.4%	94.9%
CRACK (All adults)	**3.2%**	**0.0%**	**1.2%**	**2.0%**	**96.8%**
Adults 18-24	1.0%	0.0%	0.0%	1.0%	99.0%
Adults 25-34	9.4%	0.0%	4.9%	4.5%	90.6%
Adults 35 & older	1.3%	0.0%	0.0%	1.3%	98.7%
COCAINE OR CRACK (All adults)	**8.5%**	**2.8%**	**0.9%**	**4.8%**	**91.5%**
Adults 18-24	10.7%	1.0%	5.1%	4.6%	89.3%
Adults 25-34	15.2%	9.4%	0.0%	5.8%	84.8%
Adults 35 & older	5.1%	0.7%	0.0%	4.4%	94.9%
UPPERS (All adults)	**4.3%**	**0.0%**	**0.7%**	**3.5%**	**95.7%**
Adults 18-24	7.8%	0.0%	4.3%	3.6%	92.2%
Adults 25-34	10.6%	0.0%	0.0%	10.6%	89.4%
Adults 35 & older	0.6%	0.0%	0.0%	0.6%	99.4%
DOWNERS (All adults)	**4.5%**	**0.5%**	**1.5%**	**2.5%**	**95.5%**
Adults 18-24	9.1%	3.2%	6.0%	0.0%	90.9%
Adults 25-34	7.6%	0.0%	0.0%	7.6%	92.4%
Adults 35 & older	2.0%	0.0%	0.8%	1.2%	98.0%
HEROIN (All adults)	**1.0%**	**0.0%**	**0.0%**	**1.0%**	**99.0%**
Adults 18-24	1.0%	0.0%	0.0%	1.0%	99.0%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	1.3%	0.0%	0.0%	1.3%	98.7%
OTHER OPIATES (All adults)	**0.2%**	**0.0%**	**0.0%**	**0.2%**	**99.8%**
Adults 18-24	1.0%	0.0%	0.0%	1.0%	99.0%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	0.0%	0.0%	0.0%	0.0%	100.0%
PSYCHEDELICS (All adults)	**3.1%**	**0.7%**	**0.0%**	**2.5%**	**96.9%**
Adults 18-24	3.9%	3.9%	0.0%	0.0%	96.1%
Adults 25-34	8.8%	0.0%	0.0%	8.8%	91.2%
Adults 35 & older	0.6%	0.0%	0.0%	0.6%	99.4%
ANY ILLICIT DRUG(S) (All adults)	**21.4%**	**5.2%**	**5.1%**	**11.1%**	**78.6%**
Adults 18-24	40.5%	12.1%	15.9%	12.5%	59.5%
Adults 25-34	30.5%	9.4%	7.1%	14.0%	69.5%
Adults 35 & older	12.1%	1.5%	1.2%	9.4%	87.9%

Table F5. Prevalence and Recency of Substance Use by Age, All Border Adults in Brownsville: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**61.2%**	**29.4%**	**6.8%**	**25.0%**	**38.8%**
Adults 18-24	62.1%	29.6%	11.4%	21.0%	37.9%
Adults 25-34	67.5%	35.1%	6.1%	26.3%	32.5%
Adults 35 & older	58.7%	27.4%	5.8%	25.6%	41.3%
ALCOHOL (All adults)	**79.8%**	**50.6%**	**13.3%**	**15.8%**	**20.2%**
Adults 18-24	80.3%	58.6%	12.5%	9.1%	19.7%
Adults 25-34	78.1%	59.4%	11.1%	7.6%	21.9%
Adults 35 & older	80.3%	45.5%	14.3%	20.4%	19.7%
MARIJUANA (All adults)	**17.7%**	**0.8%**	**2.5%**	**14.4%**	**82.3%**
Adults 18-24	29.1%	1.2%	7.4%	20.5%	70.9%
Adults 25-34	29.5%	1.9%	1.8%	25.7%	70.5%
Adults 35 & older	10.8%	0.3%	1.5%	9.0%	89.2%
INHALANTS (All adults)	**2.9%**	**0.2%**	**0.4%**	**2.3%**	**97.1%**
Adults 18-24	6.1%	0.0%	1.9%	4.2%	93.9%
Adults 25-34	5.9%	0.8%	0.5%	4.6%	94.1%
Adults 35 & older	1.1%	0.0%	0.0%	1.1%	98.9%
COCAINE (All adults)	**7.2%**	**0.2%**	**0.9%**	**6.1%**	**92.8%**
Adults 18-24	13.8%	1.1%	4.3%	8.4%	86.2%
Adults 25-34	11.3%	0.0%	1.2%	10.1%	88.7%
Adults 35 & older	4.1%	0.0%	0.0%	4.1%	95.9%
CRACK (All adults)	**0.3%**	**0.0%**	**0.1%**	**0.2%**	**99.7%**
Adults 18-24	0.7%	0.0%	0.7%	0.0%	99.3%
Adults 25-34	1.0%	0.0%	0.0%	1.0%	99.0%
Adults 35 & older	0.0%	0.0%	0.0%	0.0%	100.0%
COCAINE OR CRACK (All adults)	**7.2%**	**0.2%**	**0.9%**	**6.1%**	**92.8%**
Adults 18-24	13.8%	1.1%	4.3%	8.4%	86.2%
Adults 25-34	11.3%	0.0%	1.2%	10.1%	88.7%
Adults 35 & older	4.1%	0.0%	0.0%	4.1%	95.9%
UPPERS (All adults)	**1.2%**	**0.1%**	**0.0%**	**1.1%**	**98.8%**
Adults 18-24	0.8%	0.0%	0.0%	0.8%	99.2%
Adults 25-34	2.7%	0.5%	0.0%	2.3%	97.3%
Adults 35 & older	0.8%	0.0%	0.0%	0.8%	99.2%
DOWNERS (All adults)	**0.9%**	**0.1%**	**0.0%**	**0.7%**	**99.1%**
Adults 18-24	4.1%	0.8%	0.0%	3.3%	95.9%
Adults 25-34	1.0%	0.0%	0.0%	1.0%	99.0%
Adults 35 & older	0.0%	0.0%	0.0%	0.0%	100.0%
HEROIN (All adults)	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**100.0%**
Adults 18-24	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	0.0%	0.0%	0.0%	0.0%	100.0%
OTHER OPIATES (All adults)	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**100.0%**
Adults 18-24	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	0.0%	0.0%	0.0%	0.0%	100.0%
PSYCHEDELICS (All adults)	**1.0%**	**0.0%**	**0.0%**	**1.0%**	**99.0%**
Adults 18-24	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	1.7%	0.0%	0.0%	1.7%	98.3%
ANY ILLICIT DRUG(S) (All adults)	**18.9%**	**1.2%**	**2.9%**	**14.8%**	**81.1%**
Adults 18-24	30.3%	3.1%	8.2%	19.1%	69.7%
Adults 25-34	30.3%	2.4%	3.0%	24.8%	69.7%
Adults 35 & older	12.1%	0.3%	1.5%	10.3%	87.9%

Table F6. Prevalence and Recency of Substance Use by Age, All Border Adults in Colonias: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**64.8%**	**28.3%**	**8.1%**	**28.5%**	**35.2%**
Adults 18-24	60.6%	25.8%	16.8%	18.0%	39.4%
Adults 25-34	65.6%	22.5%	7.5%	35.5%	34.4%
Adults 35 & older	66.2%	32.0%	4.8%	29.4%	33.8%
ALCOHOL (All adults)	**76.0%**	**44.0%**	**14.6%**	**17.4%**	**24.0%**
Adults 18-24	80.1%	46.2%	21.7%	12.2%	19.9%
Adults 25-34	77.3%	48.6%	14.3%	14.4%	22.7%
Adults 35 & older	73.8%	41.0%	11.9%	20.9%	26.2%
MARIJUANA (All adults)	**23.2%**	**1.6%**	**2.4%**	**19.1%**	**76.8%**
Adults 18-24	25.6%	4.7%	10.2%	10.6%	74.4%
Adults 25-34	26.3%	1.4%	0.9%	24.0%	73.7%
Adults 35 & older	20.7%	0.5%	0.0%	20.2%	79.3%
INHALANTS (All adults)	**6.0%**	**0.0%**	**0.6%**	**5.4%**	**94.0%**
Adults 18-24	6.7%	0.0%	1.5%	5.2%	93.3%
Adults 25-34	7.6%	0.0%	1.0%	6.6%	92.4%
Adults 35 & older	4.9%	0.0%	0.0%	4.9%	95.1%
COCAINE (All adults)	**8.5%**	**0.8%**	**0.8%**	**6.9%**	**91.5%**
Adults 18-24	13.2%	1.3%	1.9%	10.0%	86.8%
Adults 25-34	16.3%	0.8%	0.7%	14.8%	83.7%
Adults 35 & older	3.0%	0.5%	0.4%	2.0%	97.0%
CRACK (All adults)	**0.7%**	**0.2%**	**0.2%**	**0.3%**	**99.3%**
Adults 18-24	0.8%	0.0%	0.0%	0.8%	99.2%
Adults 25-34	1.1%	0.0%	0.7%	0.4%	98.9%
Adults 35 & older	0.4%	0.4%	0.0%	0.0%	99.6%
COCAINE OR CRACK (All adults)	**8.5%**	**0.8%**	**0.8%**	**6.9%**	**91.5%**
Adults 18-24	13.2%	1.3%	1.9%	10.0%	86.8%
Adults 25-34	16.3%	0.8%	0.7%	14.8%	83.7%
Adults 35 & older	3.0%	0.5%	0.4%	2.0%	97.0%
UPPERS (All adults)	**5.6%**	**0.5%**	**1.2%**	**3.9%**	**94.4%**
Adults 18-24	3.1%	1.0%	0.3%	1.8%	96.9%
Adults 25-34	14.5%	0.2%	1.0%	13.4%	85.5%
Adults 35 & older	2.3%	0.4%	1.6%	0.3%	97.7%
DOWNERS (All adults)	**4.0%**	**0.5%**	**0.6%**	**2.9%**	**96.0%**
Adults 18-24	6.8%	1.3%	0.4%	5.1%	93.2%
Adults 25-34	5.2%	0.0%	2.0%	3.3%	94.8%
Adults 35 & older	2.3%	0.4%	0.0%	1.9%	97.7%
HEROIN (All adults)	**0.3%**	**0.0%**	**0.1%**	**0.3%**	**99.7%**
Adults 18-24	0.4%	0.0%	0.3%	0.1%	99.6%
Adults 25-34	0.4%	0.0%	0.0%	0.4%	99.6%
Adults 35 & older	0.3%	0.0%	0.0%	0.3%	99.7%
OTHER OPIATES (All adults)	**0.6%**	**0.0%**	**0.0%**	**0.6%**	**99.4%**
Adults 18-24	1.7%	0.0%	0.0%	1.7%	98.3%
Adults 25-34	0.5%	0.0%	0.0%	0.5%	99.5%
Adults 35 & older	0.1%	0.0%	0.0%	0.1%	99.9%
PSYCHEDELICS (All adults)	**2.9%**	**0.2%**	**0.3%**	**2.5%**	**97.1%**
Adults 18-24	1.5%	0.7%	0.2%	0.6%	98.5%
Adults 25-34	9.7%	0.0%	1.0%	8.7%	90.3%
Adults 35 & older	0.3%	0.0%	0.0%	0.3%	99.7%
ANY ILLICIT DRUG(S) (All adults)	**25.0%**	**2.0%**	**3.7%**	**19.2%**	**75.0%**
Adults 18-24	28.2%	5.8%	10.3%	12.2%	71.8%
Adults 25-34	29.7%	2.1%	1.9%	25.7%	70.3%
Adults 35 & older	21.5%	0.5%	2.0%	18.9%	78.5%

Table F7. Prevalence and Recency of Substance Use by Age, All Male Border Adults: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**85.0%**	**45.1%**	**4.4%**	**35.5%**	**15.0%**
Adults 18-24	76.6%	43.5%	7.6%	25.5%	23.4%
Adults 25-34	81.3%	50.6%	8.5%	22.1%	18.7%
Adults 35 & older	89.5%	43.2%	1.5%	44.7%	10.5%
ALCOHOL (All adults)	**93.5%**	**68.5%**	**9.4%**	**15.7%**	**6.5%**
Adults 18-24	92.6%	78.0%	8.4%	6.2%	7.4%
Adults 25-34	93.8%	73.5%	11.8%	8.5%	6.2%
Adults 35 & older	93.8%	63.1%	8.6%	22.1%	6.2%
MARIJUANA (All adults)	**39.3%**	**4.2%**	**5.7%**	**29.4%**	**60.7%**
Adults 18-24	55.3%	9.0%	13.8%	32.5%	44.7%
Adults 25-34	45.0%	8.7%	3.4%	32.9%	55.0%
Adults 35 & older	31.3%	0.6%	3.9%	26.8%	68.7%
INHALANTS (All adults)	**10.9%**	**0.4%**	**0.1%**	**10.5%**	**89.1%**
Adults 18-24	17.9%	1.5%	0.6%	15.7%	82.1%
Adults 25-34	11.7%	0.3%	0.0%	11.5%	88.3%
Adults 35 & older	8.2%	0.0%	0.0%	8.2%	91.8%
COCAINE (All adults)	**17.1%**	**2.7%**	**1.9%**	**12.4%**	**82.9%**
Adults 18-24	19.4%	2.7%	5.9%	10.8%	80.6%
Adults 25-34	25.9%	7.8%	3.2%	15.0%	74.1%
Adults 35 & older	12.4%	0.4%	0.1%	11.9%	87.6%
CRACK (All adults)	**6.8%**	**2.4%**	**1.2%**	**3.2%**	**93.2%**
Adults 18-24	6.3%	0.6%	0.5%	5.2%	93.7%
Adults 25-34	10.9%	2.6%	4.3%	4.0%	89.1%
Adults 35 & older	5.1%	2.9%	0.0%	2.2%	94.9%
COCAINE OR CRACK (All adults)	**17.2%**	**4.3%**	**2.0%**	**10.9%**	**82.8%**
Adults 18-24	19.9%	2.7%	6.1%	11.1%	80.1%
Adults 25-34	25.9%	7.8%	3.2%	15.0%	74.1%
Adults 35 & older	12.4%	3.3%	0.1%	9.0%	87.6%
UPPERS (All adults)	**10.3%**	**0.2%**	**1.0%**	**9.1%**	**89.7%**
Adults 18-24	12.0%	0.9%	3.3%	7.8%	88.0%
Adults 25-34	16.1%	0.0%	1.1%	15.0%	83.9%
Adults 35 & older	7.1%	0.0%	0.1%	7.0%	92.9%
DOWNERS (All adults)	**5.9%**	**1.3%**	**0.9%**	**3.7%**	**94.1%**
Adults 18-24	10.9%	3.5%	3.5%	3.9%	89.1%
Adults 25-34	10.1%	2.6%	0.0%	7.5%	89.9%
Adults 35 & older	2.4%	0.0%	0.5%	1.9%	97.6%
HEROIN (All adults)	**3.7%**	**0.4%**	**0.0%**	**3.3%**	**96.3%**
Adults 18-24	1.2%	0.0%	0.0%	1.2%	98.8%
Adults 25-34	1.7%	1.7%	0.0%	0.0%	98.3%
Adults 35 & older	5.4%	0.0%	0.0%	5.4%	94.6%
OTHER OPIATES (All adults)	**1.7%**	**0.6%**	**0.0%**	**1.0%**	**98.3%**
Adults 18-24	2.5%	0.0%	0.0%	2.5%	97.5%
Adults 25-34	2.6%	2.6%	0.0%	0.0%	97.4%
Adults 35 & older	1.0%	0.0%	0.0%	1.0%	99.0%
PSYCHEDELICS (All adults)	**10.8%**	**0.9%**	**0.5%**	**9.5%**	**89.2%**
Adults 18-24	13.3%	2.6%	1.6%	9.0%	86.7%
Adults 25-34	18.2%	1.6%	0.8%	15.9%	81.8%
Adults 35 & older	6.8%	0.0%	0.0%	6.8%	93.2%
ANY ILLICIT DRUG(S) (All adults)	**40.7%**	**7.3%**	**6.3%**	**27.1%**	**59.3%**
Adults 18-24	57.4%	12.4%	16.2%	28.8%	42.6%
Adults 25-34	47.3%	11.2%	5.0%	31.0%	52.7%
Adults 35 & older	32.2%	3.9%	3.5%	24.8%	67.8%

Table F8. Prevalence and Recency of Substance Use by Age, All Female Border Adults: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**54.5%**	**17.2%**	**4.5%**	**32.9%**	**45.5%**
Adults 18-24	56.7%	21.1%	9.7%	26.0%	43.3%
Adults 25-34	63.5%	23.8%	6.6%	33.1%	36.5%
Adults 35 & older	50.4%	13.4%	2.2%	34.7%	49.6%
ALCOHOL (All adults)	**77.5%**	**38.4%**	**16.0%**	**23.1%**	**22.5%**
Adults 18-24	83.4%	43.7%	19.7%	20.1%	16.6%
Adults 25-34	79.9%	45.0%	17.0%	18.0%	20.1%
Adults 35 & older	74.9%	34.3%	14.6%	25.9%	25.1%
MARIJUANA (All adults)	**16.9%**	**0.8%**	**1.9%**	**14.2%**	**83.1%**
Adults 18-24	25.7%	3.0%	5.0%	17.7%	74.3%
Adults 25-34	20.9%	0.6%	3.6%	16.7%	79.1%
Adults 35 & older	12.8%	0.2%	0.3%	12.2%	87.2%
INHALANTS (All adults)	**1.7%**	**0.3%**	**0.1%**	**1.4%**	**98.3%**
Adults 18-24	5.2%	0.0%	0.1%	5.1%	94.8%
Adults 25-34	1.4%	0.0%	0.2%	1.2%	98.6%
Adults 35 & older	0.8%	0.5%	0.0%	0.4%	99.2%
COCAINE (All adults)	**4.5%**	**0.3%**	**0.8%**	**3.5%**	**95.5%**
Adults 18-24	6.2%	1.0%	0.1%	5.0%	93.8%
Adults 25-34	8.2%	0.5%	1.1%	6.6%	91.8%
Adults 35 & older	2.6%	0.0%	0.8%	1.8%	97.4%
CRACK (All adults)	**0.6%**	**0.3%**	**0.1%**	**0.2%**	**99.4%**
Adults 18-24	0.1%	0.0%	0.0%	0.1%	99.9%
Adults 25-34	0.5%	0.0%	0.5%	0.0%	99.5%
Adults 35 & older	0.8%	0.5%	0.0%	0.3%	99.2%
COCAINE OR CRACK (All adults)	**4.5%**	**0.6%**	**0.5%**	**3.5%**	**95.5%**
Adults 18-24	6.2%	1.0%	0.1%	5.0%	93.8%
Adults 25-34	8.2%	0.5%	1.1%	6.6%	91.8%
Adults 35 & older	2.6%	0.5%	0.3%	1.8%	97.4%
UPPERS (All adults)	**7.3%**	**0.3%**	**0.3%**	**6.7%**	**92.7%**
Adults 18-24	5.8%	0.0%	0.9%	4.9%	94.2%
Adults 25-34	5.7%	0.2%	0.8%	4.8%	94.3%
Adults 35 & older	8.4%	0.5%	0.0%	8.0%	91.6%
DOWNERS (All adults)	**1.5%**	**0.3%**	**0.3%**	**0.9%**	**98.5%**
Adults 18-24	3.2%	0.0%	1.9%	1.3%	96.8%
Adults 25-34	1.6%	0.0%	0.1%	1.5%	98.4%
Adults 35 & older	1.0%	0.5%	0.0%	0.6%	99.0%
HEROIN (All adults)	**0.6%**	**0.0%**	**0.3%**	**0.3%**	**99.4%**
Adults 18-24	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 25-34	0.5%	0.0%	0.0%	0.5%	99.5%
Adults 35 & older	0.8%	0.0%	0.5%	0.3%	99.2%
OTHER OPIATES (All adults)	**0.4%**	**0.3%**	**0.1%**	**0.1%**	**99.6%**
Adults 18-24	0.4%	0.1%	0.0%	0.3%	99.6%
Adults 25-34	0.5%	0.0%	0.5%	0.0%	99.5%
Adults 35 & older	0.5%	0.5%	0.0%	0.0%	99.5%
PSYCHEDELICS (All adults)	**6.8%**	**0.5%**	**0.1%**	**6.2%**	**93.2%**
Adults 18-24	9.9%	1.6%	0.7%	7.6%	90.1%
Adults 25-34	3.4%	0.0%	0.0%	3.4%	96.6%
Adults 35 & older	7.3%	0.5%	0.0%	6.9%	92.7%
ANY ILLICIT DRUG(S) (All adults)	**18.1%**	**1.2%**	**2.5%**	**14.4%**	**81.9%**
Adults 18-24	28.4%	3.5%	6.5%	18.5%	71.6%
Adults 25-34	22.6%	0.7%	5.3%	16.5%	77.4%
Adults 35 & older	13.4%	0.7%	0.3%	12.4%	86.6%

Table F9. Prevalence and Recency of Substance Use by Age, All Non-Hispanic Border Adults: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**81.1%**	**32.7%**	**2.9%**	**45.5%**	**18.9%**
Adults 18-24	77.5%	39.8%	14.8%	23.0%	22.5%
Adults 25-34	89.6%	50.4%	0.8%	38.4%	10.4%
Adults 35 & older	79.4%	26.4%	1.2%	51.7%	20.6%
ALCOHOL (All adults)	**90.3%**	**65.3%**	**8.5%**	**16.5%**	**9.7%**
Adults 18-24	96.5%	82.7%	13.8%	0.0%	3.5%
Adults 25-34	91.9%	63.0%	11.8%	17.2%	8.1%
Adults 35 & older	88.7%	62.6%	6.6%	19.4%	11.3%
MARIJUANA (All adults)	**44.0%**	**2.3%**	**3.2%**	**38.5%**	**56.0%**
Adults 18-24	66.5%	6.7%	7.7%	52.1%	33.5%
Adults 25-34	39.5%	7.4%	6.2%	26.0%	60.5%
Adults 35 & older	40.9%	0.0%	1.5%	39.4%	59.1%
INHALANTS (All adults)	**9.5%**	**0.0%**	**0.0%**	**9.5%**	**90.5%**
Adults 18-24	30.9%	0.0%	0.0%	30.9%	69.1%
Adults 25-34	5.9%	0.0%	0.0%	5.9%	94.1%
Adults 35 & older	6.5%	0.0%	0.0%	6.5%	93.5%
COCAINE (All adults)	**13.7%**	**1.1%**	**1.0%**	**11.6%**	**86.3%**
Adults 18-24	13.8%	0.0%	2.2%	11.6%	86.2%
Adults 25-34	25.2%	5.8%	4.0%	15.4%	74.8%
Adults 35 & older	10.5%	0.0%	0.0%	10.5%	89.5%
CRACK (All adults)	**7.3%**	**2.7%**	**1.9%**	**2.7%**	**92.7%**
Adults 18-24	11.3%	0.0%	0.6%	10.7%	88.7%
Adults 25-34	10.2%	0.0%	9.8%	0.5%	89.8%
Adults 35 & older	5.7%	3.9%	0.0%	1.8%	94.3%
COCAINE OR CRACK (All adults)	**13.8%**	**3.8%**	**1.1%**	**8.9%**	**86.2%**
Adults 18-24	14.5%	0.0%	2.8%	11.6%	85.5%
Adults 25-34	25.2%	5.8%	4.0%	15.4%	74.8%
Adults 35 & older	10.5%	3.9%	0.0%	6.6%	89.5%
UPPERS (All adults)	**18.6%**	**0.0%**	**0.9%**	**17.7%**	**81.4%**
Adults 18-24	24.1%	0.0%	4.0%	20.1%	75.9%
Adults 25-34	21.2%	0.0%	2.1%	19.1%	78.8%
Adults 35 & older	16.8%	0.0%	0.0%	16.8%	83.2%
DOWNERS (All adults)	**2.7%**	**0.0%**	**0.5%**	**2.2%**	**97.3%**
Adults 18-24	6.2%	0.0%	4.0%	2.2%	93.8%
Adults 25-34	8.0%	0.0%	0.0%	8.0%	92.0%
Adults 35 & older	0.6%	0.0%	0.0%	0.6%	99.4%
HEROIN (All adults)	**3.4%**	**0.0%**	**0.0%**	**3.4%**	**96.6%**
Adults 18-24	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 25-34	1.4%	0.0%	0.0%	1.4%	98.6%
Adults 35 & older	4.6%	0.0%	0.0%	4.6%	95.4%
OTHER OPIATES (All adults)	**0.7%**	**0.0%**	**0.0%**	**0.7%**	**99.3%**
Adults 18-24	5.4%	0.0%	0.0%	5.4%	94.6%
Adults 25-34	0.0%	0.0%	0.0%	0.0%	100.0%
Adults 35 & older	0.0%	0.0%	0.0%	0.0%	100.0%
PSYCHEDELICS (All adults)	**19.6%**	**1.1%**	**0.0%**	**18.5%**	**80.4%**
Adults 18-24	39.3%	8.5%	0.0%	30.8%	60.7%
Adults 25-34	18.8%	0.0%	0.0%	18.8%	81.2%
Adults 35 & older	16.0%	0.0%	0.0%	16.0%	84.0%
ANY ILLICIT DRUG(S) (All adults)	**44.8%**	**5.5%**	**3.9%**	**35.4%**	**55.2%**
Adults 18-24	66.5%	10.7%	7.7%	48.0%	33.5%
Adults 25-34	43.3%	7.4%	10.1%	25.8%	56.7%
Adults 35 & older	41.1%	3.9%	1.5%	35.7%	58.9%

Table F10. Prevalence and Recency of Substance Use by Age, All Hispanic Border Adults: 1996

	EVER USED	PAST MONTH	PAST YEAR (not past month)	NOT PAST YEAR	NEVER USED
TOBACCO (All adults)	**64.5%**	**29.2%**	**5.0%**	**30.3%**	**35.5%**
Adults 18-24	64.0%	30.4%	7.3%	26.3%	36.0%
Adults 25-34	67.6%	33.2%	9.2%	25.3%	32.4%
Adults 35 & older	63.2%	26.9%	2.2%	34.0%	36.8%
ALCOHOL (All adults)	**83.1%**	**48.0%**	**14.4%**	**20.7%**	**16.9%**
Adults 18-24	86.0%	55.6%	14.2%	16.2%	14.0%
Adults 25-34	85.2%	57.4%	15.2%	12.6%	14.8%
Adults 35 & older	81.1%	40.8%	14.1%	26.2%	18.9%
MARIJUANA (All adults)	**21.6%**	**2.4%**	**3.8%**	**15.4%**	**78.4%**
Adults 18-24	34.4%	5.8%	9.7%	18.9%	65.6%
Adults 25-34	30.6%	3.7%	2.9%	24.0%	69.4%
Adults 35 & older	12.7%	0.6%	2.1%	10.0%	87.3%
INHALANTS (All adults)	**4.8%**	**0.4%**	**0.1%**	**4.3%**	**95.2%**
Adults 18-24	7.2%	0.9%	0.5%	5.8%	92.8%
Adults 25-34	6.4%	0.2%	0.1%	6.1%	93.6%
Adults 35 & older	3.2%	0.4%	0.0%	2.8%	96.8%
COCAINE (All adults)	**9.2%**	**1.5%**	**1.4%**	**6.3%**	**90.8%**
Adults 18-24	12.4%	2.2%	3.1%	7.0%	87.6%
Adults 25-34	14.5%	3.5%	1.6%	9.4%	85.5%
Adults 35 & older	5.5%	0.3%	0.7%	4.6%	94.5%
CRACK (All adults)	**2.2%**	**0.8%**	**0.2%**	**1.2%**	**97.8%**
Adults 18-24	1.3%	0.4%	0.1%	0.8%	98.7%
Adults 25-34	4.3%	1.5%	0.5%	2.2%	95.7%
Adults 35 & older	1.5%	0.5%	0.0%	0.9%	98.5%
COCAINE OR CRACK (All adults)	**9.2%**	**1.8%**	**1.2%**	**6.3%**	**90.8%**
Adults 18-24	12.5%	2.2%	3.1%	7.2%	87.5%
Adults 25-34	14.6%	3.5%	1.6%	9.4%	85.4%
Adults 35 & older	5.5%	0.8%	0.3%	4.4%	94.5%
UPPERS (All adults)	**5.4%**	**0.3%**	**0.5%**	**4.5%**	**94.6%**
Adults 18-24	5.5%	0.6%	1.6%	3.3%	94.5%
Adults 25-34	8.1%	0.1%	0.7%	7.3%	91.9%
Adults 35 & older	4.1%	0.4%	0.1%	3.7%	95.9%
DOWNERS (All adults)	**3.8%**	**1.0%**	**0.6%**	**2.2%**	**96.2%**
Adults 18-24	7.2%	2.1%	2.4%	2.7%	92.8%
Adults 25-34	5.0%	1.5%	0.0%	3.5%	95.0%
Adults 35 & older	2.1%	0.4%	0.3%	1.4%	97.9%
HEROIN (All adults)	**1.5%**	**0.3%**	**0.2%**	**1.1%**	**98.5%**
Adults 18-24	0.7%	0.0%	0.0%	0.7%	99.3%
Adults 25-34	1.0%	1.0%	0.0%	0.0%	99.0%
Adults 35 & older	2.1%	0.0%	0.4%	1.7%	97.9%
OTHER OPIATES (All adults)	**1.1%**	**0.6%**	**0.1%**	**0.4%**	**98.9%**
Adults 18-24	0.6%	0.1%	0.0%	0.5%	99.4%
Adults 25-34	1.9%	1.5%	0.3%	0.0%	98.1%
Adults 35 & older	1.0%	0.4%	0.0%	0.6%	99.0%
PSYCHEDELICS (All adults)	**5.1%**	**0.6%**	**0.4%**	**4.1%**	**94.9%**
Adults 18-24	5.4%	0.7%	1.4%	3.3%	94.6%
Adults 25-34	8.4%	0.9%	0.4%	7.0%	91.6%
Adults 35 & older	3.4%	0.4%	0.0%	3.0%	96.6%
ANY ILLICIT DRUG(S) (All adults)	**23.2%**	**3.5%**	**4.4%**	**15.3%**	**76.8%**
Adults 18-24	37.3%	7.2%	12.0%	18.1%	62.7%
Adults 25-34	32.1%	5.3%	4.0%	22.8%	67.9%
Adults 35 & older	13.9%	1.4%	1.9%	10.7%	86.1%

Appendix G. Substance Problem Tables

Table G1. Alcohol and Drug-Related Problems by Age and Gender: All Border Adults, 1996

	Total Adults	Age			Gender	
Alcohol-Related Problems		18-24	25-34	35+	Males	Females
1. More than intended	13.4%	18.4%	20.0%	9.1%	22.7%	5.3%
2. Tried to cut down	7.9%	8.5%	10.4%	6.6%	14.3%	2.4%
3. Spent a lot of time	8.4%	5.6%	8.6%	9.1%	10.5%	6.5%
4. Hazardous use/neglected roles	11.0%	13.7%	17.1%	7.5%	19.4%	3.7%
5. Gave up important activities	4.1%	5.9%	5.1%	3.2%	7.6%	1.2%
6. Continued use despite problems	7.1%	7.8%	10.2%	5.6%	12.3%	2.6%
7. Tolerance	5.4%	9.6%	4.9%	4.3%	9.0%	2.2%
8. Withdrawal symptoms	2.1%	1.8%	1.5%	2.5%	3.2%	1.1%
9. Used to relieve withdrawal symptoms	1.9%	1.3%	1.8%	2.1%	3.3%	0.6%
10. Felt dependent	2.5%	2.0%	2.3%	2.7%	3.2%	1.9%
No. of Alcohol-Related Problems						
None	76.7%	70.6%	71.8%	80.6%	64.3%	87.3%
One or more problems	23.3%	29.4%	28.2%	19.4%	35.7%	12.7%
Alcohol abuse (1-2 problems)	14.0%	19.2%	12.5%	13.1%	19.4%	9.4%
Alcohol dependence (3+ problems)	9.3%	10.2%	15.7%	6.3%	16.3%	3.3%
Drug-Related Problems						
1. More than intended	2.4%	5.1%	3.9%	1.0%	3.9%	1.2%
2. Tried to cut down	3.3%	6.0%	6.2%	1.3%	5.3%	1.6%
3. Spent a lot of time	2.2%	4.1%	4.3%	0.8%	4.1%	0.7%
4. Hazardous use/neglected roles	3.5%	6.6%	6.9%	1.2%	6.3%	1.1%
5. Gave up important activities	1.8%	2.0%	3.4%	1.0%	3.2%	0.5%
6. Continued use despite problems	2.4%	4.2%	5.1%	0.7%	3.8%	1.1%
7. Tolerance	1.5%	4.7%	1.6%	0.5%	2.1%	1.0%
8. Withdrawal symptoms	0.8%	0.7%	1.5%	0.5%	1.3%	0.4%
9. Used to relieve withdrawal symptoms	1.0%	1.7%	1.6%	0.5%	1.7%	0.4%
10. Felt dependent	1.2%	0.7%	2.3%	0.9%	1.9%	0.6%
No. of Drug-Related Problems						
None	94.9%	89.2%	91.4%	98.2%	91.8%	97.6%
One or more problems	5.1%	10.8%	8.6%	1.8%	8.2%	2.4%
Drug abuse (1-2 problems)	2.2%	5.7%	3.4%	0.6%	3.4%	1.1%
Drug dependence (3+ problems)	2.9%	5.2%	5.2%	1.2%	4.8%	1.2%
No. of Alcohol- or Drug-Related Problems						
None	75.8%	68.5%	70.3%	80.4%	62.8%	87.0%
One or more problems	24.2%	31.5%	29.7%	19.6%	37.2%	13.0%
Alcohol or drug abuse (1-2 problems)	14.1%	19.0%	12.7%	13.1%	20.1%	8.9%
Alcohol or drug dependence (3+ problems)	10.1%	12.5%	17.0%	6.5%	17.1%	4.1%

Note: Data are based on the four border sites, excluding the colonia sample.

Table G2. Alcohol and Drug-Related Problems by Race/Ethnicity and Income: All Border Adults, 1996

	Race/Ethnicity		Income		
	Non-Hispanic	Hispanic	Low	Medium	High
Alcohol-Related Problems					
1. More than intended	11.6%	14.0%	13.1%	12.9%	18.0%
2. Tried to cut down	3.2%	9.4%	8.8%	7.2%	7.5%
3. Spent a lot of time	13.6%	6.6%	6.8%	12.4%	8.9%
4. Hazardous use/neglected roles	9.2%	11.6%	8.9%	13.8%	14.8%
5. Gave up important activities	1.4%	5.0%	3.9%	4.9%	1.8%
6. Continued use despite problems	4.7%	7.9%	8.5%	6.1%	2.8%
7. Tolerance	5.6%	5.3%	4.6%	6.4%	8.5%
8. Withdrawal symptoms	1.7%	2.2%	2.9%	0.9%	0.9%
9. Used to relieve withdrawal symptoms	1.3%	2.0%	2.6%	0.7%	1.5%
10. Felt dependent	2.3%	2.6%	3.3%	1.0%	3.0%
No. of Alcohol-Related Problems					
None	72.6%	78.0%	79.6%	70.2%	72.1%
One or more problems	27.4%	22.0%	20.4%	29.8%	27.9%
Alcohol abuse (1-2 problems)	19.0%	12.4%	12.0%	19.2%	16.8%
Alcohol dependence (3+ problems)	8.3%	9.6%	8.4%	10.6%	11.1%
Drug-Related Problems					
1. More than intended	1.5%	2.8%	2.2%	3.3%	1.0%
2. Tried to cut down	2.7%	3.5%	3.2%	4.4%	2.7%
3. Spent a lot of time	2.6%	2.1%	1.7%	4.3%	1.0%
4. Hazardous use/neglected roles	3.7%	3.5%	2.3%	6.0%	2.8%
5. Gave up important activities	2.0%	1.7%	1.2%	3.4%	0.0%
6. Continued use despite problems	1.2%	2.8%	1.8%	4.0%	1.0%
7. Tolerance	1.8%	1.5%	1.5%	2.0%	1.2%
8. Withdrawal symptoms	0.3%	1.0%	0.7%	0.9%	0.0%
9. Used to relieve withdrawal symptoms	0.3%	1.2%	1.0%	0.6%	1.3%
10. Felt dependent	0.3%	1.5%	1.1%	1.6%	0.0%
No. of Drug-Related Problems					
None	95.3%	94.8%	95.5%	93.1%	97.0%
One or more problems	4.7%	5.2%	4.5%	6.9%	3.0%
Drug abuse (1-2 problems)	2.7%	2.0%	2.2%	2.1%	2.0%
Drug dependence (3+ problems)	2.0%	3.2%	2.3%	4.8%	1.0%
No. of Alcohol- or Drug-Related Problems					
None	72.3%	77.0%	78.4%	69.6%	72.0%
One or more problems	27.7%	23.0%	21.6%	30.4%	28.0%
Alcohol or drug abuse (1-2 problems)	19.2%	12.4%	12.1%	19.2%	16.8%
Alcohol or drug dependence (3+ problems)	8.6%	10.6%	9.5%	11.1%	11.1%

Note: Data are based on the four border sites, excluding the colonia sample.

Table G3. Alcohol and Drug-Related Problems by Education: All Border Adults, 1996

	Education		
	Non-HS Graduate	HS Graduate	Beyond HS
Alcohol-Related Problems			
1. More than intended	12.6%	16.1%	12.4%
2. Tried to cut down	10.7%	9.0%	3.5%
3. Spent a lot of time	7.7%	6.0%	10.8%
4. Hazardous use/neglected roles	11.6%	12.2%	9.3%
5. Gave up important activities	7.3%	2.0%	1.7%
6. Continued use despite problems	8.9%	7.0%	4.9%
7. Tolerance	5.7%	5.0%	5.3%
8. Withdrawal symptoms	2.9%	1.0%	1.8%
9. Used to relieve withdrawal symptoms	2.1%	1.2%	2.0%
10. Felt dependent	3.4%	1.1%	2.3%
No. of Alcohol-Related Problems			
None	79.8%	74.7%	74.2%
One or more problems	20.2%	25.3%	25.8%
Alcohol abuse (1-2 problems)	9.7%	15.9%	18.1%
Alcohol dependence (3+ problems)	10.5%	9.4%	7.7%
Drug-Related Problems			
1. More than intended	3.6%	2.1%	1.1%
2. Tried to cut down	4.9%	3.0%	1.6%
3. Spent a lot of time	2.9%	1.4%	2.0%
4. Hazardous use/neglected roles	5.1%	2.8%	2.2%
5. Gave up important activities	2.5%	1.2%	1.3%
6. Continued use despite problems	4.0%	0.6%	1.6%
7. Tolerance	1.6%	1.7%	1.4%
8. Withdrawal symptoms	1.3%	0.2%	0.6%
9. Used to relieve withdrawal symptoms	1.4%	0.2%	0.9%
10. Felt dependent	2.2%	0.2%	0.6%
No. of Drug-Related Problems			
None	93.1%	94.9%	97.2%
One or more problems	6.9%	5.1%	2.8%
Drug abuse (1-2 problems)	2.2%	3.5%	1.2%
Drug dependence (3+ problems)	4.6%	1.6%	1.6%
No. of Alcohol- or Drug-Related Problems			
None	78.4%	73.8%	74.0%
One or more problems	21.6%	26.2%	26.0%
Alcohol or drug abuse (1-2 problems)	9.5%	16.5%	18.1%
Alcohol or drug dependence (3+ problems)	12.1%	9.7%	7.9%

Note: Data are based on the four border sites, excluding the colonia sample.

Table G4. Alcohol and Drug-Related Problems by Survey Site and in Colonias: All Border Adults, 1996

	Site				Colonias
	El Paso	Laredo	McAllen	Brownsville	
Alcohol-Related Problems					
1. More than intended	15.4%	9.0%	12.4%	11.9%	7.6%
2. Tried to cut down	9.3%	4.6%	10.2%	2.9%	3.6%
3. Spent a lot of time	11.3%	2.7%	7.9%	4.9%	2.5%
4. Hazardous use/neglected roles	11.4%	4.3%	15.0%	7.5%	5.6%
5. Gave up important activities	6.0%	2.2%	4.1%	0.8%	1.8%
6. Continued use despite problems	9.7%	3.9%	5.5%	4.8%	5.0%
7. Tolerance	8.4%	2.3%	4.4%	1.0%	1.3%
8. Withdrawal symptoms	3.1%	2.1%	1.3%	0.8%	0.9%
9. Used to relieve withdrawal symptoms	3.0%	2.1%	0.7%	0.7%	0.7%
10. Felt dependent	4.0%	3.1%	0.8%	1.0%	1.3%
No. of Alcohol-Related Problems					
None	70.7%	87.2%	78.9%	82.6%	88.3%
One or more problems	29.3%	12.8%	21.1%	17.4%	11.7%
Alcohol abuse (1-2 problems)	17.1%	7.2%	12.1%	12.8%	7.0%
Alcohol dependence (3+ problems)	12.2%	5.6%	9.0%	4.7%	4.7%
Drug-Related Problems					
1. More than intended	2.7%	1.5%	3.7%	0.6%	0.8%
2. Tried to cut down	3.7%	1.0%	5.8%	0.1%	1.1%
3. Spent a lot of time	2.2%	0.5%	4.5%	0.1%	1.5%
4. Hazardous use/neglected roles	3.7%	0.7%	6.7%	0.2%	1.2%
5. Gave up important activities	2.1%	0.6%	2.8%	0.0%	1.5%
6. Continued use despite problems	2.1%	0.9%	5.1%	0.1%	1.2%
7. Tolerance	2.6%	0.9%	1.1%	0.0%	0.5%
8. Withdrawal symptoms	1.1%	0.7%	0.8%	0.1%	0.4%
9. Used to relieve withdrawal symptoms	1.1%	0.7%	1.4%	0.1%	0.5%
10. Felt dependent	1.7%	0.7%	1.2%	0.1%	0.5%
No. of Drug-Related Problems					
None	94.0%	97.8%	92.3%	99.3%	97.2%
One or more problems	6.0%	2.2%	7.7%	0.7%	2.9%
Drug abuse (1-2 problems)	3.4%	1.3%	1.7%	0.5%	0.8%
Drug dependence (3+ problems)	2.6%	0.9%	5.9%	0.3%	2.1%
No. of Alcohol- or Drug-Related Problems					
None	69.8%	85.8%	77.9%	82.2%	87.0%
One or more problems	30.2%	14.2%	22.1%	17.8%	12.9%
Alcohol or drug abuse (1-2 problems)	17.2%	8.0%	11.7%	12.8%	6.9%
Alcohol or drug dependence (3+ problems)	13.0%	6.1%	10.3%	4.9%	6.0%

Note: Data are based on the four border sites, excluding the colonia sample.

Appendix H. List of Colonias Surveyed

Table H1. List of Colonias Surveyed and Number of Interviews Completed in Each, by County: 1996

No.	County	Colonia	No. of Interviews
1	Cameron	Arroyo Colorado	10
2	Cameron	Betty Acres	10
3	Cameron	Cameron Park	25
4	Cameron	Combes	11
5	Cameron	Del Mar Heights	19
6	Cameron	Encantada/el Ranchito	6
7	Cameron	Lozano	12
8	Cameron	Olmito	18
9	Cameron	Primera	11
10	Cameron	San Pedro	6
11	Cameron	Santa Maria	24
12	Cameron	Stuart Place	10
13	Hidalgo	Acevedo	3
14	Hidalgo	Ala Blanca #1	3
15	Hidalgo	Ala Blanca #2	3
16	Hidalgo	Ala Blanca #3	3
17	Hidalgo	Ala Blanca #4	3
18	Hidalgo	Babb Subd. Units 1,2,3	12
19	Hidalgo	Bar 6 Subdivision	6
20	Hidalgo	Bar Subdivision	6
21	Hidalgo	Barbosa	9
22	Hidalgo	Benavides	6
23	Hidalgo	Borderland	7
24	Hidalgo	Capisallo Park	13
25	Hidalgo	Elflaco	6
26	Hidalgo	Engleman Estates	3
27	Hidalgo	Expwy Heights Subdivision	15
28	Hidalgo	Hidalgo Park	20
29	Hidalgo	Highland Heights	8
30	Hidalgo	Hilda	3
31	Hidalgo	Hoehn Drive	8
32	Hidalgo	La Mesa	7
33	Hidalgo	Las Milpas Rd	6
34	Hidalgo	Llano Grande	7
35	Hidalgo	Los Ebanos	8
36	Hidalgo	Lull	15
37	Hidalgo	Lunar Heights	9
38	Hidalgo	Madero	18
39	Hidalgo	Muniz Sub.	9
40	Hidalgo	Noreste	9
41	Hidalgo	Nuevo Alton	14
42	Hidalgo	Palm Lake Est. 1-4	41
43	Hidalgo	Rancho Escendido	3
44	Hidalgo	Royalty House	5
45	Hidalgo	Salinas-Hinojosa	6
46	Hidalgo	Sioux Terrace	6
47	Hidalgo	South Fork Est.	3
48	Hidalgo	South Tower Est. Subdivision	15
49	Hidalgo	Tierra Linda	19
50	Hidalgo	Villas Del Valle	3
51	Hidalgo	Villas Del Verde	9